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COVID-19 MÕJU AVALIKE ALADE KASUTAMISELE ELAMURAJOONIDES IIKEJA, LAGOSE OSARIIGIS, NIGEERIAS, NÄITEL

THE IMPACT OF COVID-19 ON OPEN SPACE USE IN RESIDENTIAL NEIGHBOURHOOD CASE STUDY IN IKEJA, LAGOS STATE NIGERIA

Master's Thesis

Curriculum in Landscape Architecture

Supervisor: Friedrich Kuhlmann

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Avalik ala viitab nii looduslikele kui ka inimtekkelistele aladele, mida kasutatakse õues puhkamiseks, kuid Nigeerias on läbi viidud vähe uuringuid nende kasutamise kohta. Selliste ruumide omaksvõtt on Nigeerias olnud keeruline inimeste arvamuste, urbaniseerumise määra, ebapiisava planeerimise ning kultuuritavade järgimise tõttu. Alates SARS-CoV-2 tekkimisest on vähenenud alade kasutamine viiruse leviku piiramiseks.

See lõputöö mille eesmärk on vaadelda Covid-19 mõju avalike alade kasutamisele Ikeja kohaliku omavalitsuse piirkonnas, Lagos, Nigeerias. Uurimus viidi läbi 80 Ikeja LGA-s elava vastaja seas. Vastajate valimiseks kasutati mugandatud valimit koos poolstruktureeritud küsimustikuga, et toetada uurimuse eesmärke. Samal ajal koguti andmeid Google Formsi kaudu, suulisi intervjuusid ning andmeid analüüsiti IBM SPSS 20,0 abil. Järeldustest selgus, et uuringupiirkonna noorema elanikkonna alade kasutamine on vähenenud alates Covid-19 puhkemisest ning vanem elanikkond märkis, et nad vältisid avalike ruumide kasutamist murest, et Covid-19 võib mõjutada nende tervist.

Lisaks tõid tulemused välja, et vanem elanikkond tundis end juba enne 19. Covid ilmumist oma tavalisest igapäevaelust eraldatuna. Uurimistööst selgus ka, et alates pandeemia algusest 2019. aastal on valimis olnud aladel avalike ruumide kasutus ja ruumi väärtus drastiliselt vähenenud.

Märksõnad: **Avalik linnaruum, elamurajoon,** Covid-19,

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Open space refers to both natural and human-made areas that are used for outdoor recreation, However, there are only a few studies on the usage of open spaces in Nigeria. The embracement of the use of open spaces has been a questionable act in Nigeria as a result of people's perception, urbanization rate, inadequate planning, and adherence to cultural practices. Since the emergence of SARS-CoV-2, there has been a decrease in the use of open spaces to curb the spread of the virus.

The research is aimed at the impact of Covid-19 on open spaces usage in the neighborhood of Ikeja Local Government Area, Lagos, Nigeria, during the pandemic. A research study was conducted among 80 respondents residing in Ikeja LGA. A convenience sampling technique was used to select respondents, with a semi-structured questionnaire to support the research objectives. Conversely, data was collected through Google Forms and oral interviews, and then data analyzed using IBM SPSS 20.0. The findings revealed that the use of the public spaces by the younger population in the study area has reduced since the outbreak of Covid-19, while the older population indicated that they avoided using the open spaces due to the panic of Covid-19 effect on their health.

Furthermore, this research brings out that the older population felt disengaged from their normal daily life even before the emergence of Covid-19. Secondly, it was revealed that since the pandemic, the use and value of public spaces in the study area had reduced drastically.

Keywords: Urban Open Spaces, Residential Neighbourhood, Covid-19,

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Terminology:

Abbreviation	Term
GRA	Government Reserved Area
LGA	Local Government Area
SPSS	Statistical Package for the Social Sciences
WHO	World Health Organization

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1.0 INTRODUCTION

1.1 BACKGROUND TO STUDY

Historically, the part of society's general wellbeing evolved in high-density metropolitan zones throughout time. The relation between general wellbeing and urban planning is not perplexing as the goal is typical: is to provide a convenient and healthy environment in which residents can live, work, and play are features of an ideal and happy city.

These likewise incorporate the function of land use and constructed climate (public structures, mixed land uses, passerby walkways, open spaces, and water bodies) and its effects on the populace's health.

The Health Organization (WHO) decreed Covid-19 disease a pandemic on March 11, 2020. The leader of the Health Organization (WHO 2020) urged all countries to 'test, identity, isolate, track, diagnose, and organize their citizens' response and minimize spread,' according to the institution's official statement. In other to limit the spread of the highly infectious virus, many countries imposed travel restrictions outside of the home (Tufan and Kayaaslan 2020). Non-local travel for leisure and recreation, for example, is expressly forbidden in Scotland (Scottish Government 2020).Covid-19 spreads faster and more devastatingly in larger cities, as Stier, Berman, and Bettencourt (2020) illustrated. As a result, cities have placed stringent physical barriers and restrictions on outdoor open space (Samuelsson et al., 2020). While this was crucial for preventing the disease of Covid-19, these margins on outside leisure remain thought to have unintended negative consequences for metropolitan populations' health. Because 'exposure to metropolitan green spaces is pivotal when anxiety rates continue increased in residents who are unexpectedly requested to seek a roof over your head and human disturbance due to fear and uncertainty of infections' according to the theory (Samuelsson et al. 2020).

The epic Coronavirus syndrome (COVID-19) pandemic has shown our absence of readiness for a worldwide outbreak of the pandemic crisis. The pandemic may not keep going forever, but our reaction to it will shape our urban communities' eventual fate for the coming years. The living condition of our everyday life shaped under a pandemic circumstance is likewise an impression of our urban communities' deficiencies. While most of us have stayed indoors in this existing urban sprawl and found other options to work through computerized media, we have passed up the 'play' perspective. In favor of other priorities, open spaces are never prioritized and often neglected in favor of different needs.

The advantages of engaging in leisure events have been differentiated by previous research, which including improving good living; encouraging social connection; improving productivity; forestalling wrongdoing and against social practices; and enhancing society's monetary base, among others, for example, among others (Obi-Ademola, 2008: Vanguard, 2004; Moroukola, 2003; Brown, 2000).

From the perspective of the natural and micro-climate scale, Adejumo (2011), whose study center around Lagos, considers the open space organization the center of shared assets that stimulate ecological awareness and ensure the biodiversity of the city's eco-zone.

In human settlements, it is a fundamental precondition for climate and hydrological equilibrium. Therefore, given all the benefits that open space can bring to the municipal and living surroundings, the need to examine the basic standard of free diversion space planning and usage from the more extensive perspective and how land use is cherished in current incidents. The open space inherently encompasses a range of understandings and offers individuals, communities, and nations various information (Enger,2005).

Due to what an urban region signifies, the different consequences of open recreation spaces at the metropolitan magnitude are approximately to analyze being a significant area of the tip-top and other expert labourers. We likewise take a glimpse at the impact of Covid 19 on the employments of these places. A comparatively larger number is used in this study that open spaces are open recreational spaces, including teenagers' play space in suburban communities, free open spaces in the urban center, urban greenery areas, etc. they give individuals the ability to monitor their mental and physical assets (Hobfoll, 2011)

Open spaces consist of recreational areas, coordinated green, and other regular open spaces, such as floodplains and forest cover in plain zones, as indicated in the 2014 Formulation and Implementation Guidelines for the Urban and Regional Development Plans. Remember about commonly discussing open spaces in a metropolitan area, and the rules propose a standard of 10-12 square meters of free space per individual. These imply a 25-35 percent allotment of a city's zone reserved as recreational and open spaces, notwithstanding the environment's sensitive part.

This pandemic made us understand the significance of reachable open spaces that allow movement inside a dense neighbourhood area of our community. The physical isolation with the absence of sufficient open spaces is one of the huge reasons for uneasiness and helpless day to day environments.

STATEMENT OF PROBLEM

The low external value of exceptionally densely packed developing country's urban communities results from outdoor spaces' mismanagement as unofficial trading and garbage dumps. These depict Lagos's situation prior to the current democratic power, which has imbued the skyline with abundant landscaping transformation. In either case, the preservation challenges are important to the long-term viability of these natural components.

Afolayan (2020) noted that COVID 19 has significantly emerged as an indispensable housing issue that requires urgent attention. Adediran et al. (2020) observed that Coronavirus had been globally reported as a strain virus that infects human, and current pandemic which has globally prompted many studies, discussions and reports in recent months, with lots of anxiety for housing sector's operation.

It was identified that the primary transmitting method of this virus was from person to another, which is aided through respiratory droplets been sneezed out by people, and exhale or cough that can survive for many hours on surfaces like door handles, clothes, hair, tables, and so on. The potential problems posed by this virus on the study area being a high-density area is a significant concern, owing to the following issues identified in the study area: Lack of adequate air space within the houses, Overcrowdings of inhabitants; which is manifested in high occupancy ratio Lack of proper housing facilities, Poor Sanitation, Poor arrangement of structures, which devoid of planning inputs. Numerous Nigerian urban areas have drafted out urban development plans with the latest, the master plan of Kaduna Infrastructure (2018-2050), which compromise with the eight model city and master plans for Lagos state Nigeria. The momentous challenges for this project are that these are on the whole higher-order plans, giving a broad, comprehensive review of the urban development.

Lower-order plans for towns, areas, and neighbourhoods have brought about an erratic and divided metropolitan structure in numerous Nigerian urban communities. The expansion of gated networks and the built-up area, which is spatially isolated dependent on socioeconomic status, is abnormally like the spatially isolated Government Reservation Regions and local territories during the colonial time.

The subsequent impact is unregulated development across different urban areas, the spread of unlawful resident settlements, broad land-use transformation in developed regions, and the disintegration of indigenous municipal participation in planning incidents. Unregulated

metropolitan development additionally brings about peri-metropolitan communities a long way from wellbeing and other fundamental administrations. In reacting to Coronavirus, these holes are improved in casual social gatherings, which are high-risk regions. The public authority can't use metropolitan generosity to disperse wellbeing data on danger moderation and palliative consideration.

Despite these modest gains, more effort must be put into resolving some of the problems faced during this covid period by the open spaces in this residential neighbourhood.

Hence, this research investigates this problem using the Local Government Area of Ikeja as a case study.

The study aims of this research are to find answers to the following questions::

1. What is the attitude of the young population towards open spaces in the neighbourhood now?
2. How does the experience change the visiting of open spaces during the covid period?
3. Do open spaces foster the relationship between the neighbourhoods during the covid period?

OBJECTIVES OF THE STUDY

This study has a broad objective assessing how open spaces have been utilized within the residential neighbourhood during the covid period, and its specific goals are:

1. To examine the attitude of the young population towards the open spaces within the residential neighbourhood now.
2. To examine the effect of visiting the open spaces during the covid period.
3. To examine the relationship between the users of the open spaces within the neighbourhood during the covid period.

RESEARCH HYPOTHESIS

The research hypothesis formulated for this study are:

H_1 There is a significant effect of how open spaces are being utilized within the residential neighbourhood during the covid period.

Ho There is no significant effect of how open spaces are being utilized within the residential neighbourhood during the covid period.

JUSTIFICATION OF THE STUDY

This study shows how residential open spaces in Lagos, Nigeria, local government area of Ikeja can effectively be utilized during a pandemic outbreak. Researches were carried out on the efficient utilization of the residential open space and challenges caused by the pandemic that affected the residential open spaces in the Ikeja area. The study shows the population's attitude towards open spaces in the neighbourhood and examines the relationship between communities during the covid period. This study also investigates the relationship between users of open spaces within the area during the covid period. It also showed the aftermath of residential open spaces after a drop in the pandemic graphical curve.

SCOPE OF THE STUDY

The research was carried out in the local government area of Ikeja, Lagos, Nigeria. The study research all residential open spaces found within the case study and conclusions were drawn afterward. At the end of this study, the research answered how open spaces have been utilized during the covid period in the residential neighbourhood and evaluate how they can efficiently be used in the case of a future pandemic.

STUDY AREA

Geographic Location and General Characteristic

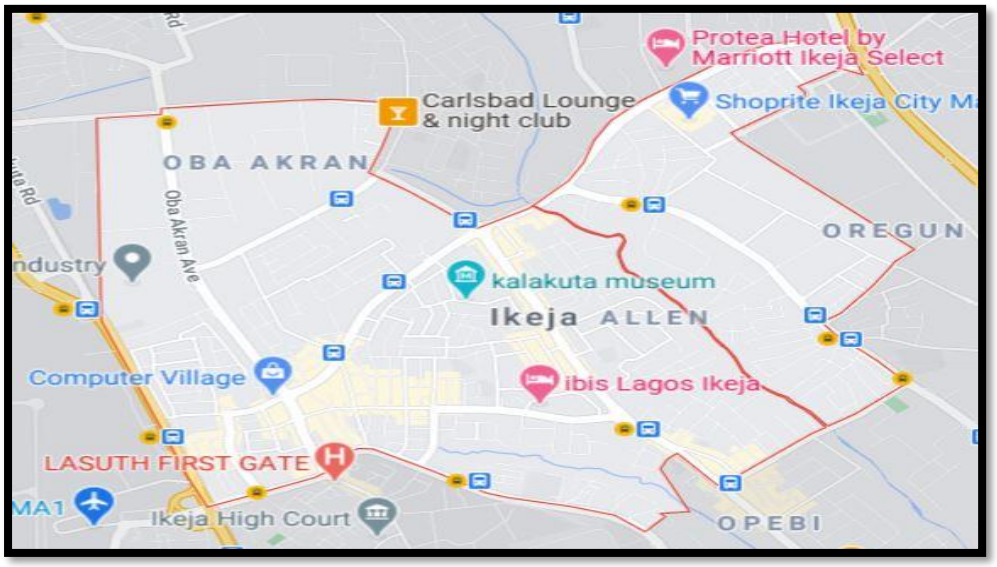
Figure 1: Lagos State, Nigeria, and its constituent Local Government Areas are depicted on a map.

(Source: GMD, 2014)

The study was conducted in the local government area of Ikeja, the state capital of Lagos.

Ikeja is a small indigenous administration area located in the NorthWest of Lagos state map. The latitude of Ikeja is 6.605874, and the longitude is 3.349149. Gps coordinates of 6° 36' 21.1464" N and 3° 20' 56.9364" E. Ikeja LGA elevation are 39 meters in height, equal to 128 feet. It occupies an area of 49.92 km^2. Its boundaries are shared with Alimosho Local Government Area in the Western and Oshodi-Isolo Local Government Area from the Southern part. As per the 2006 demographic survey, it was evaluated that the entire inhabitants of the Ikeja were 313,196 people. According to the Lagos Bureau of Statistics (2015), the people of Ikeja were projected to be 861,300 by 2015. Ikeja LGA has 12 Districts, namely, Anifowoshe, Onigbongbo, Opebi, Ojodu, Akiode, Agindigb, Alausa, Magodo, Magodo, Maryland, Oregun, and GRA(Government Reserved Area).

Figure 2: Map of Ikeja Local Government Area.



(Source: Google map data, 2021)

Historical Background

In Lagos State, Nigeria, Ikeja is a Local Government Area (LGA) officially known as "Akeja," which was termed after a deity of the OTA folks of the Awori. The people of the Awori firstly occupied it, and until the mid-nineteenth century, the territory was attacked for slaves. It later turns into a farming hinterland for Lagos toward the start of the twentieth century. In 1901,

Ikeja was changed into a residential and agricultural hinterland by the Ibadan-Lagos railway's inaugural and then after Lagos's development as a port harbor. The local government administrative headquarters of Ikeja is situated inside the premises of Ikeja Local Government. The Chairman of the Local Government of Ikeja as of June 2019 is Engr. Balogun Mojeed. Ikeja became the state capital of Lagos in 1976 due to the city's road network's improvement, which caters to the upsurge focus of pedestrian and vehicular movement within the area.

Demography

Ikeja Local Government Area has a population of 313,196 according to the 2006 census conducted by the Federal Government of Nigeria. However, during the National Population Census, the State Government's Parallel count carried out in 2006 put the State Government population at 1,134,548 million as of 2006.

Ikeja (LGA) is dominated by the large Yoruba ethnic group comprised of the Aworis and Eguns. The main occupation of the indigene of Ikeja was farming and trading. The Yoruba and English language are usually spoken in the area, while Christianity and Islam are widely practiced in the region.

Physical Structure and Land Use

The Local Government Area of Ikeja comprises all dominant land use functions, including commercial enterprise, housing, leisure, industrial, and built-up infrastructural areas, and which are properly zoned. Within the local government, residential land uses include Ikeja G.R.A., Ogba Estate, Opebi, Oregun, Akiode, Anifowoshe, Magodo, Military barrack, Quarters for the police, and government-owned and citizenry accommodation. Administrative areas, schools, churches, and public buildings are all used on the institutional property (St. Leo Catholic Church, Lagos State ministry). Markets, banks, and offices, for example, are commercial land uses. The physical configuration of the Ikeja District is of a plan area due to the administration (Alausa), housing developments, and other government infrastructure within the municipal authorities. Even though different land areas are zoned and designed during the municipal design development, the current appearance can be classified as urban blight.

Physical structures and land use in the community are distinguished by a dilapidated character, dense commercial properties with inadequate restricted airspace, and a shantytown environment that is regularly flooded during the wet season Oduwaye (2009) and some other literature.

Street shopping, uncoordinated parking by individual and government cars, and the generalized surge of the population density are among the physical attributes and land-use activities of the local government area of Ikeja.

1.2 RELEVANCE OF TOPIC TO LANDSCAPE ARCHITECTURE

Any unexplored space inside a neighbourhood's perimeter is considered an open area or assigned area with greenery that provides direct or indirect environmental benefits, either social or economic benefits to the society (Ahern, 1995; Al-Hagla, 2008). Alabi (2009), Wald, and Hostelter (2010) likewise stated that open space is space in the urban environment, either with the built structure or created as a garden or recreational purpose. It implies that grounds or immature land has an incentive for recreational purposes, amenities, conservation areas, and other natural resources, with historical or scenic landscapes of exceptional natural beauty areas such as water bodies and valleys. Kabir (2006) also stated that open spaces are informal and formal parks, watercourses, farmland, private gardens, and urban squares, which serve ecological functions, improve air quality, increase biodiversity, and stormwater management.

Green areas are continually being changed over to other land uses. The unplanned nature of many urban areas has prompted many open spaces on ongoing progressive premises. He and Jia (2004) note that urban green areas can markedly affect numerous parts of the municipal setting's nature as well as the city's life expectancy. Both public open spaces, for example, parks and private gardens within the built structure. Likewise, the landscape in the residential neighbourhood can influence the surrounding housing. Chiesura (2004) debated that natural areas' presence contributes from multiple perspectives to life quality. Urban nature gives significant social and mental advantages to human society, notwithstanding numerous environmental and ecological services, enhancing human existence with values and feelings. Furthermore, Thompson (2002) accredited in the observation that exposure to any "mother nature" is an important natural basic necessity; as a result, a critical component of open space provision.

Here are some principle to be considered in the construction and availability of open spaces

1. Principle of Equality of Access
2. The Equal Citizenship Principle
3. The Environmental Conservation Principle
4. The Principle of a Beautiful City
5. The Functional City Theory

6. The Principle of Regional Development, which is Effective
7. The Principle of Rapid National Growth in the Economy

These principles are to be well considered as it is evident that the architectural design and operations are going to be focused on some of these principles. It is also to be noted that a landscape architect's core need can't be overlooked as it is essential to achieve a well-structured and detailed design of open spaces.

CONTRIBUTION TO KNOWLEDGE

The disclosure that the report stresses the urgent need to combine open recreation spaces with land use decision-making during a pandemic at the urban level was a notable contribution made by the study. From a professional perspective, formulating ideas to help use these spaces is driven by the report. Limited recreational services are developed and managed in the study area. It is also known that the use of the public realm in this current state can not be undermined.

1.3 LIMITATION TO THE STUDY

In the study, the researcher encountered many limitations and deficiencies that he cannot control. If they know that they are being observed, the time allotted to perform this study was constrained to cover both open spaces and informants' behavioral changes. Building confidence and ensuring confidentiality in their community's data regarding their engagement with open spaces in their community by forming a partnership and maintaining a positive bond with them. To gain access to public spaces to be examined, the researcher has sought the necessary permits by obtaining the necessary letters and identification to allow him to conduct the study and gain access to the various open spaces and other areas of interest.

As this concept is inclusive, the researcher focus on residential scale and public space measures in neighbourhood-level spatial planning and design. However, this is not a straightforward delimitation, and there is undoubtedly an example that could have been included, but that is not. Also, other aspects such as stakeholder interests, typical housing are not discussed.

However, this study analyzes how residential open spaces in the Ikeja local government area of Lagos, Nigeria, can effectively be utilized during the outbreak of a COVID19.

The study also motivated the most prevalent varieties of open municipal space, including conurbation parks, playgrounds, lawns, theme parks, protected reserved areas, greenways, unoccupied fields, ancient woodlands, boulevard plants, etc. As stated above, the two areas of

the study scope restriction have aided in reducing the number of potential limitations that would have been compulsory on the whole work. These restrictions are not narrow to the lack of informed field helpers and the precise identification of numerous undeveloped and leisure areas in their various forms. However, with the help of friends in the community, the researcher overcame the common limited need for human resources such as field assistants. Also, The sample size was difficult to match to the population of the study area. Since the research region has more than a million people, the results cannot be generalized.

1.4 STRUCTURE OF THE THESIS

The study is organized into six chapters. The first chapter comprises the introduction, the problem statement, research questions, aims and objectives of the study, research hypothesis, justification of the study, the scope of the study, study area, geographic location, and general characteristics, historical background, demography, physical land use, the relevance of the topic to landscape architecture, contribution to knowledge, the definition of relevant terms, limitations of the study and structure of the thesis. This sets the tone for the discussion of the subsequent chapters.

Chapter two reviews works done on the subject matter by various authors and scholars. As well as empirical studies and indices to analyze some of these works. A theoretical framework is thus built from the discussion emanating from this chapter.

Chapter three discusses the methodology used for the study. Issues such as research design, sampling procedures, data collection method: data analysis, and data presentation and reporting are discussed.

Chapter four provides a comprehensive understanding of data collected from the field survey.

Chapter five discusses the research finding. It also presents the main findings from the previous two chapters. This chapter, according to the findings, delves into the motivation behind the goals of the research. It relates the outcomes to the literature review and tends to suggest how the results can be applied to the use of open spaces in residential neighbourhoods in the Ikeja local government area during the covid period to meet the aspirations and desires of users. The key findings in regard to the effects of covid-19 on the use of open spaces in the study area are presented in this chapter.

The research conclusion and recommendation are presented in chapter Six.

DEFINITION OF TERMS

OPEN SPACES: This is a vacant, undeveloped land parcel, has no structures or other assembled structures, and is available to the general population. Open spaces give recreational territories to residents and help to improve the beauty and environmental quality of neighbourhoods.

RESIDENTIAL NEIGHBOURHOOD: This is an area within the geographical boundaries of a local authority that is zoned or can also be said as an area mainly used for single-family homes by the local government, does not include multiple business premises, and is subject to speed limits and traffic control in accordance with residential areas.

COVID 19: This is a contagious respiratory disease discovered in 2019 caused by a new strain of Coronavirus that causes illness in humans.

CHAPTER TWO
LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The literature review and the critical theoretical principle or framework that are helpful to the study are the focus of this chapter. Theoretical understanding of this thesis has been harnessed by a thorough review of past works in this discipline. Literature on town and nature, urban open space, and land use planning argument has also supplemented the much-needed support to achieve the research goal. Numerous concluded works, including park and open spaces, general characteristics, and construction parameters, on urban open recreational space planning.

In the study area proposed, relevant literature from a broad range of contexts, environmental conservation, biodiversity, public, and civic growth, also offers the requisite avenues for incorporating compatible elements. Adequate care has been given to open recreational research, given the definition of challenging and universal application.

Model, concept, or theory are all words that are used interchangeably with the word 'model.' As a result, in this Analysis, they refer to a typically described entity or behavior that conveys specific details. Limited concepts or frameworks of city design relevant to this study were further emphasized for their application due to this enlightenment.

The motivation behind the prerequisites for shared open space and multifamily recreation and normally utilized open space in this chapter is to develop and implement parkland and shared open space areas and paths related to ancient and contemporary restoration of vacant land, which will preserve communities' health, welfare, and life satisfaction. As well as increase real estate values, benefit society, and improve aesthetic during Covid-19 while also taking a gander at the pandemic's impact on open spaces.

2.2 RESIDENTIAL AREA AND PUBLIC SPACE

The residential area is part of the urban structure in which housing is mainly used. It serves to satisfy the conditions and environment of life. Most residential areas consist of two critical elements: residences and public spaces, which add to occupants' satisfaction and everyday activities. Therefore, it could contribute to residential areas attractiveness to give a decent

quality and safe public place. Individuals are willing to live in a pleasant, healthy environment and possibly make a living place for life. However, if necessary maintenance is not fulfilled, this is regularly awkward to be satisfied, as a residential area may degrade over the long run.

In large housing areas like the study area, numerous issues happen, ordinarily brought about by helpless plans and absences of preservation of public space. This can be brought about by too new partition of spatial function and un-refined plan scale in planning and design. Public space or its features may cause less association and correspondence between individuals as too enormous scope, making an area unpleasant because of long haul unused space. The other factor that could unveil public space unappealing is the issue of traffic or parking. The vision of public space that makes it not exceptionally helpful for individuals to stroll on the pedestrian and side via vehicles along the walk, not by a decent image, could be thwarted by a vehicle parking in a too narrow road. Also, helpless plans and deficiency of public space maintenance produce unsavoury pictures of a region, further making occupants feel insecure. The fundamental factors that mess up residential areas are those angles talk about, and planners should know about this and move on to them.

A decent visual quality of the surroundings can create the allure of public space, as a pleasant visual quality of public space could demonstrate a protected environment (Jacobs, 1961). Nonetheless, public space achievement relies upon individuals' daily utilization, so a planner needs to consider numerous multidisciplinary factors to make a functional public space. For instance, careful planning for general requirements is balancing traffic and accessibility for individuals in need. An agreeable element of space creation and multifunctional space, for example, should likewise be considered in plan or design. These contemplations are made to create a comfortable public space, as a comfortable dimension in a public space is a determinant of an individual's eagerness to remain and convey. A multifunctional space could permit an alternate gathering of individuals to be fulfilled (In the same place). Also, the last viewpoint that could influence the allure of public space. It's a feeling of a spot having a place and public interest. Accordingly, with a view to an acquaintance, unwinding, and excellent neighbor relations, public space should be created to build up this feeling of having a place.

2.3 QUALITY OF LIFE AND PUBLIC OPEN SPACES

The quality of life in a city reflects the man and his community (Das, 2008). Satisfaction with the built environments is one indicator of standard of living. (Sirgy dan Cornwell, 2002).

Consequently, satisfaction with public open space could be a proxy for urbanization, influencing the wellbeing of individuals. The natural environment, both as a spatial form and a place for various activities, greatly improves people's living standards, especially in meeting their needs for health, leisure, and an increased municipal landscape. As part of the community open field attributes, the mere sight of trees and gardens can provide relief and restoration (Ulrich, 1986). As a scene for a variety of events, public open space provides certain benefits to one's standard of living, including psychosomatic and health and fitness, recreational doles, and the satisfaction of a desire aimed at a friendly metropolitan climate (Maller et al., 2009; Kaplan and Kaplan, 2009). As a result, a positive attitude toward public open space may positively affect one's standard of living. Our awareness of the association involving the public realm and living standards is influenced by factors such as the research subject, the size of the built environment, and the community characteristics surrounding land research. Some studies investigated how one or even more outdoor area variables influence some maybe more health variables. (Chiesura, 2004; Sugiyama et al., 2010).

Some surveys studied the link regarding public realm and life expectancy using secondary datasets and objective health outcomes data. (Lynch, 2007; Beck, 2009; Quintas and Curado, 2009). Above all, many researchers conducted their studies in a developed world with a well-defined shared space infrastructure that is an integral part of the overall built environments layout. In a developing world with a shortage of well-designed recreational areas, similar research is lacking. Many aspects of the degradation of the outdoor neighbourhood must be investigated to create a more appropriate solution focused on the needs of residents.

2.4 CONCEPTUAL MEANING OF OPEN SPACES

For example, the natural region, woodlands, and grasslands, just as working homesteads, farms, and forest areas are incorporated in the Open Space. Open space consists of parks inside metropolitan and rural areas, stream and waterway hallways, and other characteristic regions. Open space areas, private or public, might be secured or unprotected (Thompson, 2002). Regarding (Woolley, 2004) without forcing the tasteful model, urban open space can be characterized as a space between structures in metropolitan regions that is geometrically limited by a scope of rises or elevation.

Each metropolis is believed to materialized in a chastely normal state of the surroundings. The variety of human impedance and creative roles forces unparalleled adjustment to the first system with a mission to develop the metropolitan environment (Coffin and Stacey, 2005).

Berg, Hassenzahl, and Raven (2010), who indicated on their discovery depends on the ground, have debated that there is no genuine indigenous habitat because engineered synthetic materials are currently being discovered everywhere they are in the water, soil, and air. Clearly, in their planned or normal state, metropolitan recreation assets, such as open spaces and public parks, highlight our current community. As they give individuals the ability to inhale fresh air in a crowded area, they serve a specific need. These uses energize 'physiological solace' and 'human association' indulgence (Mosher, 2009; Motloch, 2005).

If further consideration is given, open spaces can be dynamic or uninvolved can offer the open door for leisure games and become a place for tourist enhancements. With a radical definition, numerous parks in America started. Among these green spaces are the beautiful and sacred public parks protected for general purposes. Burns and Duncan (2009), who contemplates the authentic history of nurseries in America, tracked down that, notwithstanding other customary resources held since its first revelation in 1851 and the making of the universes first recreational area at Yellowstone, America has near 400 destinations and 84 million terrains in its park structure (United States).

Discoveries on the genuine embodiment of open amusement space from separated investigations across the globe are very uncovering. The Findings of the outdoor establishment in the united state on the inclusion of open spaces indicate that structure is a primary bond with earth at an early age is imperative for the pleasure in the outside sometimes down the road, which may help cultivate a generation of enthusiastic open-air devotees and devoted stewards according to the report for U.S. Outdoor Recreation, (2011). Research in the USA has shown that in 2011 almost half of Americans matured six times and more experienced and were involved in outside recreation. The sensation of planning open recreational surroundings is a necessity of life to a decent level of enthusiasm for nature's crucial magnificence. There is a quick intrusion into unused land space in the city in numerous urban areas due to the thorough and thorough test with the always pressing area and the journalist covetousness for benefitting propensity; that again educates the requirement for government-cognizant intercession.

2.4.1 TYPES OF OPEN SPACES

There are various typologies given to different kinds of open spaces by specialists, associations, and specialists. From a more extensive point of view, the following are illustrations of open areas and how they might be structured (Forum, 2005).

- Open green spaces may be represented as land covered incompletely or altogether covered by lawn, conifers, flower beds, or other saplings. The open green area typically includes recreational facilities, picnic areas, residence balconies, town cottages, gymnasiums, etc.
- Solid materials are commonly used in grey open spaces., for example, masonry stones, asphalt, concrete, and different types of hard clearing materials. Grey open spaces plazas, parking and amphitheaters/fields, and street grids incorporate these grey spaces. Lately, it has carried a heap of difficulties, for example, green region annihilation and high run-off because of the expansion in grey spaces. The accentuation on the marriage of grey and green spaces has prompted another type of green infrastructure worldview. Structures with nature can characterize green infrastructure, for example, metropolitan tempest water spillover the executives, as an organization that gives constituents to tackle urban and atmosphere challenges.

- Blue open spaces comprise all water bodies that can be either little or enormous; for example, streams, lake dams, ponds, rivers, seas, and their area doesn't make a difference.

It is conceivable to additional break down the grouping of open spaces into:

- The Rural Landscape signifies the land open to the sky, uncovered soil materials, covered by ranches, and scanty or thick vegetation unbuilt. This is the most significant open space classification.
- Ecological and ecologically sensitive areas include, among others, swamps, forests, bogs, game reserves, national parks, lakes, and seashores.
- Recreational areas are places saved for individuals to meet, have a great time, and be engaged. Squares, parks, linear parks, adventure playgrounds, badlands, playfields can be made out of these spaces.
- Trails are linear and form. They incorporate components that connect up spaces, such as roads, networks, and streets.

In the research area, urban growth has resulted in a considerable loss of familiar natural surroundings and biodiversity and a decline in green areas and environmental impacts. The open spaces in the study region are made up of diverse recreation areas such as squares, parks, and linear parks.

2.4.2 CITY FORM AND OPEN SPACES

The character and significance of a municipal are determined by its open land. As indicated by Heckscher and Robinson (1977), the skeleton of a city is formed by its public settings, which business focuses, foundations, and local area edifices all rely upon. Excellent open spaces are the beginning stage for reviving networks. The way that an engaging, admirably working, and productive public square can be a defining moment locally's monetary advancement from a humble community to a significant city is notable all through the world.

Streets have long been an integral part of the public domain, providing places for traders to sell their wares, people to gather and converse, and children to play. These uses have been dwindling as automobiles have become more widely available. Reclaiming streets as public space will help cities in various ways, including environmentally, economically, and socially.

In a neighbourhood, neglected gardens or squares, back streets, and stairways are underutilized and potentially valuable properties. And they belong to all, even though they seem to belong to no one. They can, however, be used to reinforce and enrich communities once they have been built. According to Ozguner & Kendle (2006), public spaces are preserved and handled influences perceptions, and many immigrant residents have favorite places. Today popular cities have a lot of public spaces. They aid in the development of a sense of belonging, identity, and culture. Social engagement, urban revitalization, and economic growth are all aided by public spaces. This is valid in Nigeria and other African countries as well as other parts of the world. For suburbanites to strengthen their leisurely community and social engagement, versatile open areas are necessary. The parks, sidewalks, places, and other open public spaces define a city's personality. In recent years, the cognitive and psychosocial roles of public space, as well as how they might improve the safety, satisfaction, and care of metropolitan people, have greatly evolved. (Lynch, 1960; Carmona et al., 2003).

In Lagos State, Nigeria, there is no simple open space structure, limiting the potential for dynamic usage of public spaces. Urban public spaces improve a city's credibility, image, and quality of life (Cybriwsky, 1999). The availability of basic areas gives people an emotional and bodily connection to the community and civic identity. Ndubisi Kanu Park in the Ikeja Neighbourhood Government Area is a superb illustration of open space typography matches since, it can give a full scope of relaxation and amusement openings on the off chance that it is fastidiously planned and meets local area interests. People's usage of designated areas differs widely across cultures and nations.

2.4.3 CONCEPT OF URBAN OPEN SPACES

Outdoor lands are a significant supporter of both locality and city-scale urban sustainability. They offer inhabitants and the city with eco-friendly wellbeing, financial advantages, and social amenities in situ. It has a symbolic incentive for the municipal, much the same as sustainable urban development procedures. As the neighbourhood origination has caused cosmopolitan and urbanization measures, open spaces development has changed.

Wellbeing and prosperity are vital perspectives that the idea of open spaces addresses. In the current culture, open spaces have been utilized to address the imbalance and improve social wellbeing. Active work, positive mental prosperity, and substantial youth advancement are elevated by admittance to excellent quality and kept up urban spaces.

Most studies have demonstrated that teenagers with admittance to safe open space and green space are bound to be genuinely dynamic and more opposed to being overweight. Outside games and exercises support reliable mental health and advance sound prosperity in city life through adulthood. The accessibility of urban and peri-metropolitan open space and green zones is an inevitably significant piece of a proper metropolitan climate, given that individuals living in towns and urban areas have less admittance to the natural surroundings. There is no doubt with regards to the estimation of green space for work out.

There are five necessities in public open spaces that people look to fulfill: relaxation, comfort, passive environmental engagement, discovery, and active ecological engagement.

- Relaxation: - identifying with the requirement for ease in open space (Carr et al., 1992 as referred to in (Carmona, 2010) portray that a feeling of mental solace might be a precondition for unwinding the body and psyche quiet is more evolved. To this point, Carmona likewise expresses that greenery, trees, traffic detachment, and water elements help to underscore the difference with the prompt climate and make it simpler to unwind.

- Comfort: - The standard for adequate public spaces is comfort. A capacity and a gauge of its coziness are the time allotment individuals remain in a public space. Ecological

factors, for example, wind, sun alleviation, and so on, incorporate the elements of a feeling of solace; real solace shows agreeable and satisfactory sitting. In contrast, social and mental comfort is identified with a sense of security. The actual plan of the room and its administration methodology can, notwithstanding, improve the feeling of solace.

- Passive engagement: While aloof ecological commitment can prompt a feeling of unwinding, it also includes the requirement for a gathering with the environment. However, Carr et. (Carmona et al. 2010) don't effectively take an interest. People viewing are maybe the essential type of uninvolved commitment. Carmona adds that others and the life and action they bring along are what tempt individuals. When all is said, the most utilized seating places are neighboring the walker stream, empowering onlookers to watch people while dodging eye to eye connection. The open doors for uninvolved commitment are additionally given by thoughts, fountains, public craftsmanship exhibitions, etc.

- Discovery:- While individuals speak to a craving for new spectacles and friendly experience, discovery relies upon diversity and changes the open space offer to individuals. They involve a break from the daily schedule and the anticipated. Discovery may encompass art exhibitions, street theatre, launch time concerts, festival parades market, and social events that help individuals pine for a sensation associated with the environment.

- Active Ecological Engagement:- Even though individuals find appropriate pleasure in people watching, Others, regardless of whether they are companions, family members, or outsiders, need more straightforward communication with nature. Lively ecological engagement in open spaces can make opportunities for communications. In public open spaces, the plan of various components, fountains, benches, sculptures can be more or less conducive to social interaction in the environment.

In summary, open spaces have several responsibilities for those who inhabit them; fostering safe and healthy neighbourhoods, various purposes, senses, and values. Individuals perceive their surroundings differently due to their cultural, social, and economic context. Thus, a

utilitarian outdoor environment has an unmistakable association between its actual layout and how it has been utilized socially.

2.5 ETHNICITY, AGE, AND GENDER OF OPEN SPACE USERS.

The profiles of users, such as race, age, and gender, should be well understood in order to fully appreciate these positive impacts and the usefulness of the outside environment. Enthusiasts from different sexual orientations, gatherings, and ages see and use unique, critically significant open spaces. People make utilization of open spaces in an unexpected way (Frumkin, 2003), and human changeability causes them to see diverse public spaces (Frumkin, 2003)

2.5.1 Ethnicity

Despite the constant changes in urban communities' social and spatial stability, ethnic minority and cultural uses of open space and parks are becoming more prevalent in the Western World. Payne et al. (2002) studied park users from various ethnic backgrounds in the United States. Their perspectives to a great extent varied from those of Caucasian respondents, like an inclination for coordinated social affairs and outdoor sports over preservation.

Tinsley et al. (2002) found that distinctions in the recurrence of park visits and inclinations for explicit exercises are not clarified by nearness. Natural elements, such as flowers and trees, were favored by Caucasian and African American participants over Hispanic and Asian participants. When linking study results to race, there are some limitations since great diversity is not represented. In quantitative analysis, overgeneralization is common, and this can leave mixed identities unaccounted for.

Asian relaxation designs have been contrasted with those of Whites, Blacks, and Hispanics in numerous studies. Dwyer (1993) found the two contrasts and likenesses in relaxation practices, with the most huge and the most apparent contrasts happening among Blacks and Whites. Picnics were fundamentally more normal among Asians and Hispanics than among Blacks.

Asians were more energized than Blacks to drive for the sake of entertainment, play tennis, and avoid baseball. Although Gobster (2002) found many connections among Blacks, Latinos, Whites, and Asians, he also noticed disparities in user behavior and preferences between these racial groups. Gobster (2002) indicated that minority bunch individuals were bound to participate in latent social-situated exercises. (e.g., socializing and picnicking).

On the other hand, whites were engaged in the majority of passive individual activities, such as jogging and walking. He also mentioned variations in park usage characteristics based on park users' ethnicity.

Walker, Deng, and Dieser (2001) examined Chinese outside recreationists' inspirations in a Canadian public park and contrasted them with Euro-North Americans. They utilized Markus and Kitayama's (1991) self-interpretation build as a middle-of-the-road variable between identity, assimilation, and outdoor amusement intentions. They found that race directly affected outside diversion inspirations, yet that character additionally assumed a part (e.g., interdependent self-construal and independent). This research suggests that taking personality into account will assist us with bettering the impacts of racism, socialization, and intentions in outdoor recreation diversion.

2.5.2 Age

Since kids' versatility is restricted in both reality, they are bound to build up an alternate relationship with outdoor land than grown-ups (O'Brien, 2006). Children's relationships to open spaces can be divided into two categories, according to Valentine (2004), since there is a consensus that toddlers should be protected from potential dangers and predators in outdoor spaces. This viewpoint differs from that of young adults, who are often depicted as threats to society in media reports and newspapers, potentially posing a danger to other users' safety. Family groups of all ages use open spaces in the Ikeja Local Government Area of Lagos, Nigeria, for leisure activities and to share a meal while keeping a close eye on young children. On these visits to open fields, young adults, on the other hand, are bonded to enter male or female groups apart from older siblings. Physical sports like football and basketball do not bother them.

Another critical criterion for evaluating whether or not to use an open space is age, with studies indicating that aging people are less likely than others to do so. Members beyond 60 years old more averse to visit a recreation center. (Greenhalgh and Wolpole, 1996). In another report, members beyond 65 years old were powerless or non-users of the public realm compared to those matured 12 to 19. (Dunnett et al., 2002). Another research discovered that hikers were mostly under 50 but that their preferred activities were unaffected by their age. The family and social nature of public open space use habits in Lagos, Nigeria, are mostly part of a community or social group of different classes.

2.5.3 Gender

Public areas are frequently seen as protected conditions, as indicated by Burgess (1995). It merits referencing that danger to ladies' wellbeing, like abusive behavior at home, frequently happens in broad daylight in public places. Women's perceptions and evaluations of risk vary when it comes to using outdoor spaces, with some participants saying that they did not feel restricted or unsafe. The importance of protection is understood to be secondary, and the interest of others is valued (Krenichyn, 2004). These results are therefore important in some communities where females are afraid to go to public places. Some religious families' beliefs and practices also require women to be followed by males when they leave home.

Feminine users of outdoor spaces have been the subject of the majority of recent studies. Since there isn't enough research on the gender variable in open space usage patterns in Nigeria, they concentrate on Western cultures. Gender is a major concern when examining open space enthusiasts, and insights from different countries are still quite useful to this analysis. The major purpose of this study is to look into the relationship between users of open spaces in the Ikeja residential community. In a study by Macnaghten and Urry (2000), numerous female respondents said they feared strolling through the forested areas, especially around evening. At the point when their progenies are playing in the forested areas, a few moms are worried about their kids' prosperity. Other research suggests that female respondents may be fearful of domestic abuse or potential crime in wooded areas rather than the fact of protection (Pacione, 2003; Keane, 1997). In relationship research, gender differences in perceived benefits have been discovered. Curson and Kitts (2000) found that boys are more likely than girls to engage in activities and use leisure facilities (Makinen & Tyrvainen, 2008).

In summary, users of these spaces in the study area differ in ethnicity, gender, and age and unexpectedly utilize open spaces, which is essential to comprehend. People's day-to-day lives are different. They have a tendency to exploit their environment and open space in unique ways; the role in which the users of this open space plays are really important to their well-being. Also, because of variety, different open space users use the area inversely, attach different senses to the particular space, and go to public space for various reasons.

2.6 Relevant Empirical Studies

2.6.1 What Attracts People to Visit Community Open Spaces in Shenzhen, China.

In Shenzhen, China, a study was conducted to decide what inspires people to visit community open spaces in the community. Chen et al. (2016) investigated the connection between open space usage and personality traits. Enormous public territories with open yards, very much kept pathways, seats, business offices, and waterscapes were significant factors in open space use. It was discovered that creating user-friendly spaces with amenities promoted active usage rather than enhancing ornamental plants and accessories (Chen et al., 2016). As a result, poorly maintained open spaces could discourage general use while encouraging use by people who commit minor offenses that can lead to more serious crimes in the neighbourhood.

Furthermore, the report reveals that the study's focus was on the characteristics and usage of community open fields; user characteristics were not recorded. It argues that adding more greenery and artwork or scenery accessories to outdoor spaces has only a small effect on residents' outdoor activities. Residents' aerobic exercises in community open fields are unaffected by excessive green coverage and grounds. Works of art and sketches are simply ornaments that do not entice visitors to stay. Scene architects should zero in on creating client-arranged conditions and offices that support dynamic use and increment the utilization of local area open fields instead of expenditure cash on decorative plants and extras. User characteristics such as age, gender, and group may affect how people use community public areas. Besides, the qualities of a free field that pull in one populace gathering can affect how others utilize it.

2.6.2 A study carried out on Impacts of COVID-19 pandemic on urban park visitation: a global analysis.

On a global, regional, and national scale, Geng, D. C., Innes, J., Wu, W., and Wang, G. (2020) conducted a study to examine the impact of COVID-19 and government reaction arrangement to the pandemic on the park travel industry. Even with the worldwide pandemic, it surveys the significance of parks. Park tourism has expanded in many nations, overviewed since February 16, 2020, when contrasted with guest numbers preceding the Coronavirus pandemic. Stay-at-home limitations and the public authority severity list are additionally contrarily connected with park visits on a worldwide scale. Since the flare-up started, inhabitants' interest in parks

and outdoor green spaces has expanded, featuring the basic job and advantages of parks, particularly metropolitan and local area parks, in battling the Coronavirus pandemic. Parks could be used to enhance people's health and their social well-being during pandemics. The Google Community Mobility Study, which was first released on April 3, 2020, provides a Google-updated dataset that shows how individuals' development has changed each day since February 16, 2020. The reliant variable for this study is the expansion in park guests over a Pre-Coronavirus standard got from this dataset. The dataset incorporates singular versatility information, which analyses park visitation and guest lengths of stay to a reference guest number acquired in January before the COVID-19 pandemic spread to 130 nations and districts worldwide (Ritchie et al., 2020b). ANOVA analysis, correlation analysis, and stepwise regression analysis were utilized to measure coronavirus effect on park visitation at the global, regional, and national levels. The favored methodology was stepwise regression analysis since it doesn't involve any earlier hypothetical familiarity with the anticipated effect of Coronavirus and government reactions on the worldwide park travel industry.

The outcomes show that in nations with outrageous Coronavirus flare-ups, the continuous expansion in cases was the main variable related to park visitation. The number of park guests was not identified with the ordinary expansion in cases or government reactions in nations where episodes were less extreme. Expanded visits were ascribed to office closures and social gathering limitations, likely because individuals can utilize the time saved from their day-by-day drive to visit stops and try not to feel desolate because of an absence of social contact. We prompt park chiefs and other leaders on the park the executives and arranging, just as park plan and improvement, during wellbeing crises.

2.6.3 A Study Carried Out On Urban Parks As Green Buffers During The Covid-19 Pandemic in Chengdu, China.

Xie, J., Luo, S., Furuya, K., and Sun, D. conducted a study in Chengdu, China. (2020) to look at the use of metropolitan parks as green reserves in the event of a coronavirus pandemic. The study collected 386 responses from Chengdu, China, and inhabitants during the pandemic through an online survey questionnaire from April 1 to 5, 2020. The study was conveyed through WeChat, and members were urged to impart it to however many individuals as they could. As per this report, metropolitan parks were valuable during the Coronavirus pandemic. The review expected members to meet the accompanying standards: (1) living in Chengdu during the flare-up; (2) utilizing a municipal park in the earlier month; and (3) being in any

event 18 years of age. IBM SPSS (Statistical Product and Service Solutions) Statistics Version 20 was used to conduct the descriptive analysis (IBM Corp., Armonk, NY, USA). All the while, in the self-evaluation, single direction ANOVA (Variance Analysis) was utilized to distinguish varieties between the various populaces. In order to better understand the problems, six mediation experiments were performed using Hayes (2017) PROCESS macro version 3.4. In addition, the statistical significance was given as = 0.05. Finally, qualitative research results to deduce general visiting patterns (e.g., time spent driving from home to the recreation center, the span of visit, favored visit time, recurrence of late use, and exercises) to give knowledge into the metropolitan park the board and use during the pandemic.

This study shows that most residents feel their health is bad and do not have enough social interaction. Most of the respondents said their emotional wellness had not improved. However, a couple said their overall condition and levels of social communication had.

People can boost their overall health and meet their social interaction needs by visiting outdoor areas. Residents diminished the recurrence of visits during the pandemic. However, even once seven days can be advantageous. Likewise, it was verified that in case of a pandemic, metropolitan parks, and huge open spaces would furnish inhabitants with safe outside diversion and social association in a green climate, just as fill in as a cradle zone to ensure great wellbeing and personal satisfaction.

2.6.4 A Study Carried Out In the Heat of Covid -19 Pandemic Focusing on Access And Use Of Green Space In Nagoya, Japan.

This research shows the information collected following Japan's official COVID-19 emergency. It was used to examine who had access to green spaces and how they were used (April 16 to May 14, 2020). Uchiyama, Y., and Kohsaka, R. conducted the research (2020). This study looks at a major behavioral trend that emerged during the COVID-19 crisis in Japan. It was indicated that visits to nature reserved during the pandemic had acquired global attention from various angles, including wellness, preparation, social equity, and fairness. The findings of a survey conducted online were used. Residents were prohibited from leaving their homes and visiting places outside of the prefectural boundaries during this period. In any case, the crisis assertion exacted fewer limitations than those forced by different nations.

The study's objective area was Aichi Prefecture and Nagoya City, which incorporates one of Japan's biggest metropolitan territories and can fill in to illustrate a metropolitan provincial interface associated by green territory organizations. The review got an aggregate of 1244 reactions. The Chi-square and t-test were utilized to examine the information in this report. The preliminary test was done with nominal data, and the subsequent test was done with continuous data. The status and change in recurrence of access and utilization of green zones were nominal variables, with the exception of age and natural settings. The chi-square test on socio-economic attributes was utilized to assess the outcomes.

This study showed that the financial component influenced the recurrence with which people visited green spaces. The variables also affected how the three types of green spaces were used (parks, agricultural lands, and gardens). The use of particular green areas was also affected by environmental contexts, such as territory patterns in the neighbourhood

Subsequently, strategies should consider inhabitants' and their families' financial qualities, like pay, the number of kids, sex, and age, just as those with confined admittance and the spread of Coronavirus locally.

Besides, guidelines administering explicit green spaces, like parks, farm fields, and gardens, should consider individuals' ecological settings. Significant green spaces, such as farm fields, should be kept up, and individuals should be permitted to utilize them while playing it safe to avoid contamination.

2.6.5 A Study Carried Out On Attitudes of Polish Seniors Towards the Use of Public Spaces During the First Wave of the Covid-19 Pandemic.

During the immediate rush of the Coronavirus pandemic, Fabisiak, Jankowska, and Kos (2020) conducted a study to examine the attitudes of Polish seniors toward the use of public spaces. This requires considering the necessities of seniors as far as public area utilization during Coronavirus. At the point when the Coronavirus pandemic was in its beginning phases, study research was utilized to gather data on senior insights with respect to the use of public space.

The study was carried out via an electronic survey that reached out to 1000 respondents aged 65 and up, investigating this topic. The utilization of gathered information in the remodel of public spaces could hurry the way toward returning after the lockdown.

The Analysis was done as part of an international study to identify new areas of concern for addressing seniors' challenges when functioning in public spaces. STATISTICA 13 P.L. was used to analyze the study (Dell, Round Rock, TX, USA).

The study showed that many fears have arisen due to the pandemic, including those related to public space. Thus, the primary thing we needed to explore was whether those sentiments would affect individuals' dread of utilizing public spaces after the lockdown was lifted. After the lockdown, just 15% of seniors said they would be reluctant to utilize public spaces; nonetheless, almost 40% said they would be "somewhat" apprehensive. This paints a picture of a populace where 55% of individuals hesitate to utilize public spaces in any capacity. The Coronavirus pandemic of 2020 also clarifies the necessities and sentiments that individuals matured 65 and up feel.

2.6.6 A Study Carried Out On Changes in Recreational Behaviours of Outdoor Enthusiast During the Covid-19 Pandemic: Analysis across Urban and Rural Communities.

Rice, W. L., Mateer, T. J., Reigner, N., Newman, P., Lawhon, B., and Taff, B. D. conducted a report (2020). The impact of the coronavirus pandemic on outdoor enthusiasts' leisure activities in urban and rural areas was examined in this paper. The gravity measures used in this study revealed how the coronavirus pandemic affects outdoor enthusiasts' leisure habits around the city-rustic separation. The Leave No Trace Center for Outdoor Ethics' online culture was chosen as the respondent pool for this study because of the recurrence with which its individuals take an interest in outside amusement. Leave No Trace is a well-known outdoor education group with a long history of working with national parks and secured territories in the United States, just as reminders of comprehension with government land, the executive's organizations, and numerous neighbourhood and state park frameworks (Marion 2014). The majority of its participants are outdoor enthusiasts from the United States. Outdoor activities (such as hiking, biking, camping, running, wildlife watching, and so on) take up 8–12 hours a week for the latter (LNT 2018). Sixty-three thousand eight hundred ninety supporters of the LNT email listserv were sent with a Qualtrics put together online study concerning recreation propensities during the Covid pandemic. Because of the time complex nature of the coronavirus pandemic, the review was just accessible for 48 hours from 9 a.m. on April ninth at 9 a.m.

(USA). Potential interviewees were approached to finish a 10-12-minute study wherein data about their sporting propensities was inquired.

The sporting strain of the pandemic excessively affects metropolitan outside aficionados, decreasing their participation, changing their relaxation conditions, and lessening boondocks entertainment to more noteworthy degrees than rustic inhabitants, as indicated by this report. To put it another way, individuals who the pandemic has straightforwardly influenced have endured the most (Stier, Berman, and Bettencourt, 2020). Altogether affect their capacity to respond to the pandemic. The discoveries propose that during this emergency, organizers and public land directors should give specific consideration to the sporting capability of metropolitan inhabitants.

2.7 Summary

We have evaluated the literature reviews and relevant empirical research conducted concerning this research. We have explained the individual and social causes for neighbourhood resident's connection with open spaces from various viewpoints in this chapter. In order to investigate the primary factors that influence this relationship. The findings from this chapter are linked to the research methodology as the relationship between the impacts of covid-19 on open uses in Ikeja's residential neighbourhood area.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

This chapter comprises information on this research work's methodological aspect, including research, research design, sample frame, sample size, source of data, data collection method, and data analysis.

3.1 Research Process

A topic was first determined for the research work; after thorough background information has been gotten on the research work from previous or related literature, this was done through reading journals, books, etc. These works of literature were reviewed and stood as the basis for this research. The study was then carried out with further inquiry through the use of the primary source of data that was analyzed and interpreted.

Problem Definition

Every research begins with defining a problem; therefore, this study begins with defining a problem. This entails finding a subject that is both interesting to stakeholders and worthy of further investigation. One of the most difficult tasks at this stage was settling on a subject from the many options available. Before choosing this subject, factors such as the availability of literature, the need for originality, and the readiness of major stakeholders in the study area to make information available: time and other resources were considered.

Review of Relevant Literatures

In conformity with the scope and the problem defined in the research, relevant literature of Works previously done on the impact of covid-19 on open space use in residential neighbourhoods around the world was sourced from the internet, journals, books, and others will be used in addition to primary data collected. This will aid the researcher in gaining insight into the topic's research and addressing any flaws that may arise from the use of primary data.

Design of Field Survey Instrument

The field survey instrument was designed according to this study's specific objective and by using previous literature reviews that were reviewed as guidelines in generating related questions to provide accurate answers to the research questions. According to Bryman ((2004),

the appeal of the questionnaire stemmed from its ease of use, low cost, lack of interviewer influence, and ease of correspondence.

3.2 Research Design and Strategy

This clarified the investigation's framework, which was aimed at defining variables for the research. The study employed qualitative analysis in carrying out this research, derived from questionnaires and interviews administered to residence within the target population.

This thesis's analysis method is a descriptive analysis technique, including inferential statistics like cross-tables, charts, and testing (Chi-square test). The descriptive analyses are to build fact based on the purpose and aim of this thesis using frequency and percentage to determine the choice of majority and minority to estimate based on fact and the study area's general population.

3.3 Nature and Sources of Data

This section comprises the information on the method used to carry out the study's survey and arrive at the structured research instrument (questionnaire). The theoretical framework to be used and the terms that probably look unclear are explained comprehensively to make the study comprehensible. Data were collected from both primary and secondary data sources to achieve the study's aim and objectives.

Primary Source

A structured research instrument (questionnaire) is designed to suit the principles and analytical measures stated in the research method and simultaneously achieve its aim.

Secondary Source

The administrative map of the Ikeja area council was also sourced from the use of google earth map as the base map, journals, textbooks, encyclopedia, web search, and report were also searched to know the past effort of The government on pandemic cases in the study area.

3.4 Sample Frame

A sample framework has a property in each element that can be identified and sampled with the elements. It's also a representation of the population, known as the target population,

because they hold the key to the study's data. This study's target population was not well identified, so data was gathered from the community; a convenience sampling technique was used since it is suitable for collecting data quickly from the target group.

Sample Size

One of the researcher's problems is determining the sample size to ensure that the group sample size isn't too small. In this situation, the data gathered would be insufficient and affect the study findings. Also, the sample group should not be too big, particularly if the responses obtained are identical, as this may result in the researcher doing double work and wasting time. (Onwuegbuzie & Leech, 2007).

Curtis et al. (2000) hold a different viewpoint on sample size, believing that it should be estimated based on the researcher's perspective. There are no such fixed rules that are expected to govern the method of deciding sampling size.

The researcher, therefore, looked at several recent studies that have looked at the problem of sample size. Based on the information he gathered, he decided to conduct his research in public open spaces that were not closed during the Ikeja Local Government Area during the coronavirus pandemic. A total of 80 people's participated in the survey.

The researcher performed 15 oral interviews at each public open space accessible during the coronavirus pandemic in the study region. To utilize the information to evaluate the effect of coronavirus on open spaces utilized by residents in the study area to achieve the necessary diversity of data collected. He intended to cover a wide range of age groups and genders at each location to get a more comprehensive picture of the visitors' opinions and prevent a repetition of views and opinions.

An online survey was also used to conduct a standardized questionnaire. To analyze the results, the researcher will use descriptive statistics.

3.5 Method of Data Collection

These are the methods or techniques used to compile data for research purposes (Kothari, 2008:7). This term applies to all of the data collection methods used in this study. Based on the previous literature reviewed and theories in this thesis, the structured research instruments (questionnaire) are designed to suit the principles and analytical measures stated in the research method and simultaneously achieve the research's aim. Respondents across various age groups and work of life were targeted for the research work. The questionnaire was structured to target

the population of people living within Ikeja. After being approved by the supervisor, the data collection using the official questionnaire was done via Google form. Its link was shared through social media to applicable respondents within Ikeja, Lagos State, Nigeria. The survey was set up in four sections. The primary data were collected using the following methods in this study were: questionnaires, interviews, transcribing, photographs, observations, and desk reviews.

i. **Questionnaires:-** standardized questionnaires are those that ask specific, physical, and anticipated questions and are planned ahead of time (Rwegoshora, 2006).In this study, the researcher created a well-designed questionnaire distributed through social media channels in the study area to collect a broad range of information from the community's households. The questions were crucial because they provided a good interpretation of the ideas of the group members' responses.

ii. **Interviews:-** This was done to gain specific insight and information from the respondents, who were believed to have a unique understanding of the study. The data gathered from the respondents was of a complementary kind. To make the analysis more detailed, data was obtained from this group of respondents. The questions were semi-structured to obtain crucial study details. The interviewees were expected to have a thorough understanding of the importance of community involvement in infrastructure growth. Representatives from the study area's community development group were among those who responded to the interviews. The researcher used only one interview technique: direct interviewing.

   He approached the interviewee in an outdoor land (Ikeja Local Government Area, Lagos, Nigeria) and began asking the chosen respondent pre-planned questions in order to gather the required data. The interview was then organized utilizing the narrative interview model, which allows the interviewer to direct the interviewee's focus towards various aspects of the issue, improving the interviewee's understanding of the focuses and subjects that need clarification. Thanks to the descriptive approach used in the study, the researcher was able to identify the opinions of the focus group, which was the aged group (interviewee), about the effect of coronavirus on open spaces users in Ikeja Local Government Area, Lagos, Nigeria, where he conducted his research.

iii. **Transcribing:-** As most interviews are led verbally, and in specific cases, the investigator records the meeting, some of the audio will have to be converted later. According to Kvale & Brinkmann (2009) and Denscombe (1998), this is one of the

processes needed to refine the information acquired and choose what parts are pertinent to the investigation and which aren't. Despite the fact that the greater part of the interviews is residents of Ikeja Local Government Area, it was suggested that the transcribing be performed by the researcher rather than by an outsourcing company since he is more familiar with the incidents that occurred during the interviews and the local setting.

iv. **Photography:-** Since the study is focused on the impact of Covid-19 on open spaces in the Ikeja Local Government Area of Lagos, Nigeria, and their use, photos of these areas are needed. The information gathered and the findings obtained will be enhanced by these photographs (Zeisel, 1981). The images needed for the study were obtained from two different sources.

The first was the detailed photographs he took to capture his interactions with tourists and the events he engaged in. The second source was Google map images of these open spaces, which depicted their architecture and directions.

v. **Observation:-** This data collection approach is the most well-known because it provides a reliable record of what people do and says (White, 2002:34). This approach was used to collect data on the public spaces that respondents suggested were accessible in the city for this analysis during the covid-19 pandemic. The information was gathered by looking at the available and ongoing open space facilities in the community. The photos taken during the research were used to justify the community's visible open space facilities during the coronavirus pandemic.

vi. **Desk Review:-** On the effect of covid-19 on open space usage in residential community density, an exhaustive analysis of existing research articles, project reports, journals, and websites was conducted. The tool used was to verify the validity and accuracy of the information gathered.

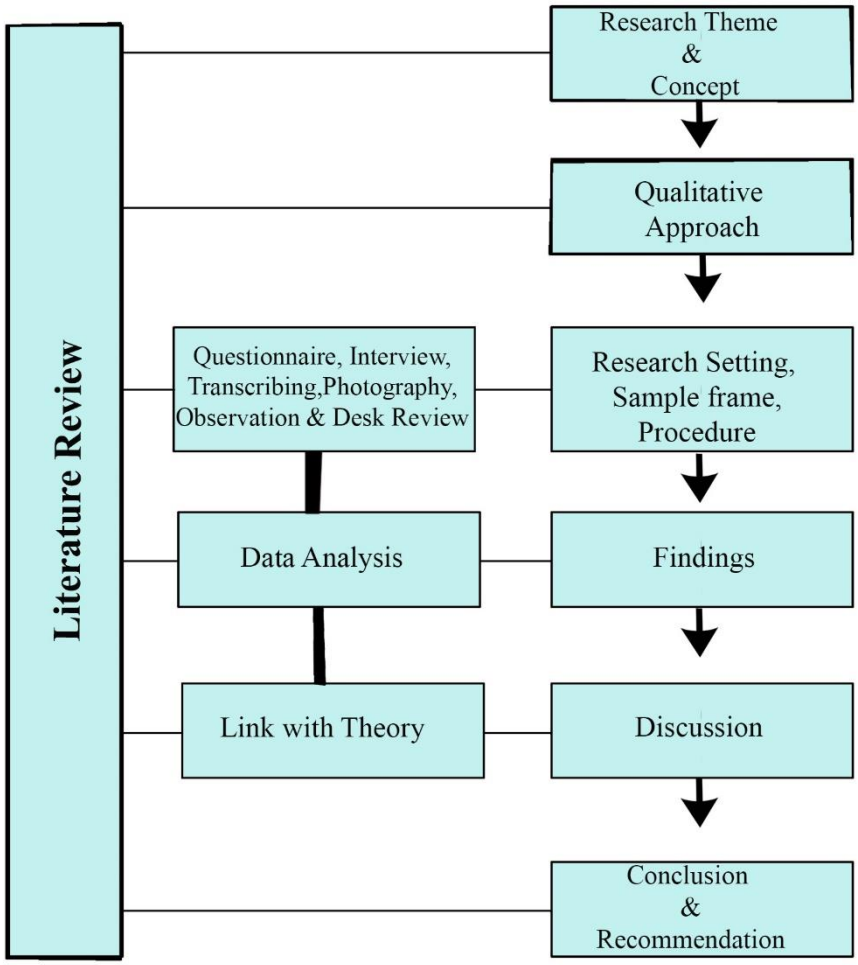
3.6 Tools for Data Analysis

The Statistical Package for Social Science (SPSS) was used to analyze all data obtained through the surveys, including descriptive and inferential statistical analysis. With the help of Microsoft Excel, the graphs were made.

Frequency Function: The frequency function generates frequency charts that show the number and percentage of cases for each variable's observed value. Frequency charts

and percentages generated were used to interpret the socioeconomic characteristics of the Respondents.

Figure 3.1: Research methodology process



(Source: The Researcher)

3.7 Summary

This chapter goes through the study's precise methodology and how they are used to create the findings and conclusions. One of the most significant components in the research process is the study's research methodology. The primary purpose of this study was to emphasize the research's methodologies and how they were used throughout the investigation and the study's main aim. The way we gather and handle information is how we can accomplish the best outcome of this study. In this research, we have shown the stages of the research and how each one was carried out.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND RESULTS

The findings of the data analysis are interpreted and clarified in detail in the following sections. The survey was conducted using a Google form questionnaire aimed at residents of Ikeja in Lagos, as well as standardized interview questions for fifteen respondents. The survey received responses from eighty people. Please refer to the appendix during the analysis and interviews of the findings.

4.1 Socio-demographic characteristics of Respondents

Figure 4.1: Which area do you live in Ikeja?

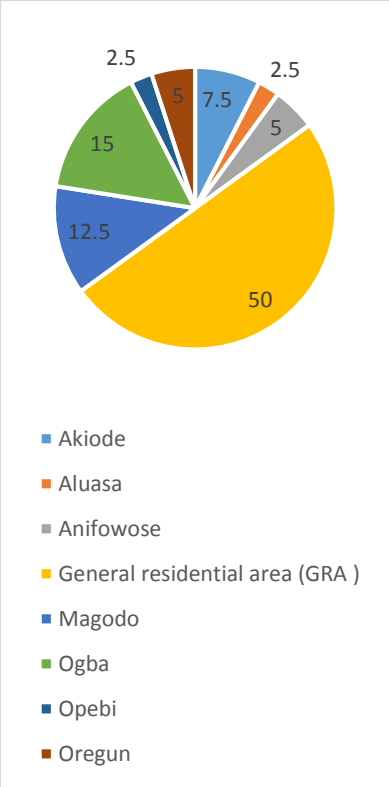


Figure 4.2: Age Group

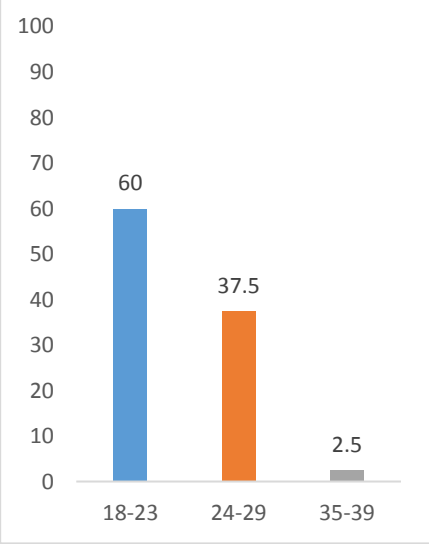
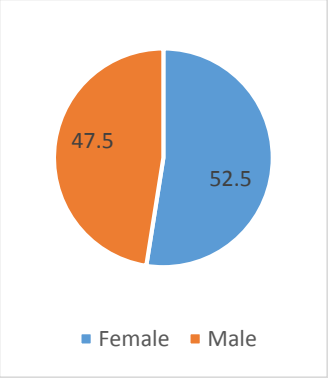


Figure 4.3: Gender



Source: Field Survey, 2021

The population of the respondents was distributed throughout Ikeja, as a higher population of the respondents reside in Government reserved area (GRA) 50%, 15% were at Ogba, 5% were from Oregun and Anifowose, respectively, 2.5% were from Opebi and Alausa respectively, 12.5% were from Magodo, and 7.5% were from Akiode, as seen in figure 4.1.

The respondents' age group indicated that 60% of the respondents were between 18-23 years, ages 24-29 years were 37.5% of the respondents' population, and 2.5% were within 35-39 years, as seen in figure 4.2.

The respondents' population was mostly made up of females at 52.5%, and males were 47.5% of the population, as seen in figure 4.3.

4.2 Attitude of the young population towards open spaces within their neighbourhood

Figure 4.4: Awareness of open spaces in the area?

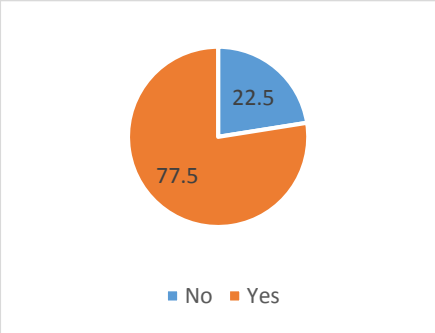


Figure 4.5: Are you looking at public space as a social space?

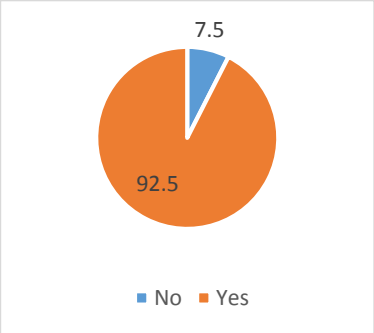


Figure 4.6: Do you think public spaces are good for recreational activities?

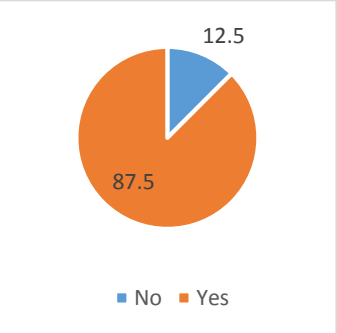


Figure 4.7: During the pandemic, were you able to visit any open space?

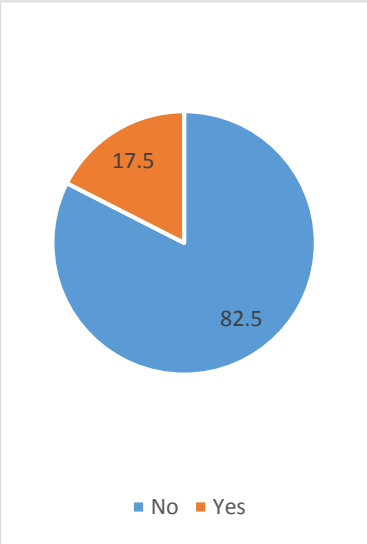


Figure 4.8: Which of your area open spaces have you used?

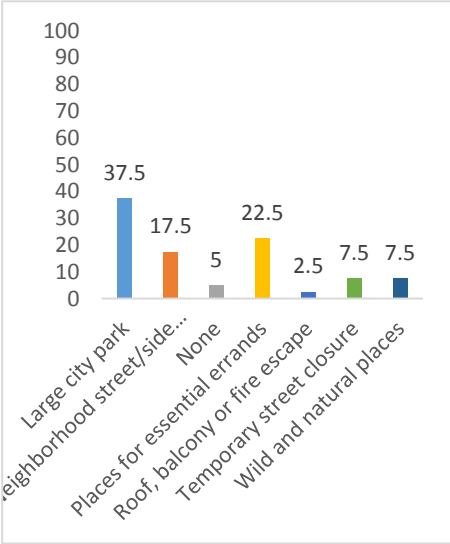
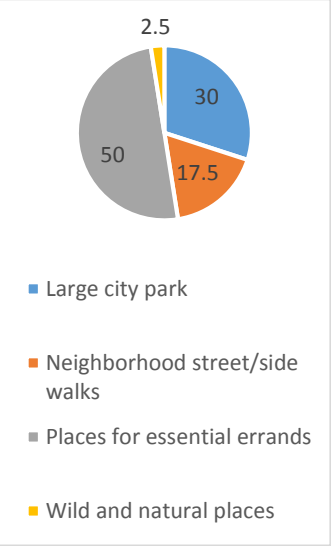


Figure 4.9: Where do you think is more crowded?



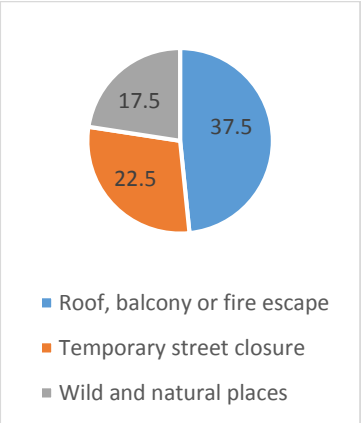


Figure 4.10: Where do you think is less crowded?

Source: Field Survey, 2021

As seen in figure 4.4 above, there were open spaces within the area at 77.5%, and 22.5% were not aware that there are open spaces.

The respondents' understanding of open spaces indicated that most of them regard open spaces as social space as 92.5% of the respondents attested to this, and 7.5% of the respondents were not in line with such idea, as seen in figure 4.5.

In figure 4.6 above, 87.5% of the respondents believe that public spaces are good for recreational activities, while 12.5% thought otherwise.

As seen in figure 4.7, during this pandemic period, many people, as indicated by the population of the target population, 82.5%, have not been able to visit an open space, while a 17.5% minute figure has been to visit one. This might be as a result of the scare about the transmission of covid-19 in public.

Figure 4.8 indicates that 37.5% have opted to visit the large city park as open space. In comparison, 17.5% has used neighbourhood streets/sidewalks instead, 5% has never used any, 22.5% used places for essential errands, 2.5% used roof, balcony or fire escape, 7.5% used temporary street closure, and another 7.5% also used wild and natural places.

As illustrated in figure 4.9, most of the respondents picture places for essential errands as the most crowded public place at 50%, followed by a large city park at 30%, neighbourhood street/sidewalks at 17.5%, and natural wildlife places at 2.5%.

Roof, balcony, or fire escape was seen as the less crowded places in public open space at 37.5%, followed by temporary street closure at 22.5% and wild and natural places at 17.5%, as shown in figure 4.10.

4.3 Effect of visiting open spaces during Covid-19 period

Figure 4.11: How satisfied are you with the public open space during the pandemic in your local neighbourhood?

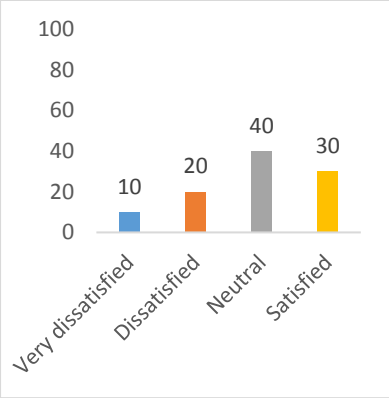


Figure 4.12: How much time do you take from home to get to the closest open space to you?

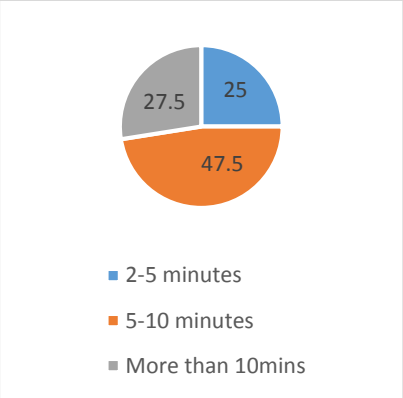
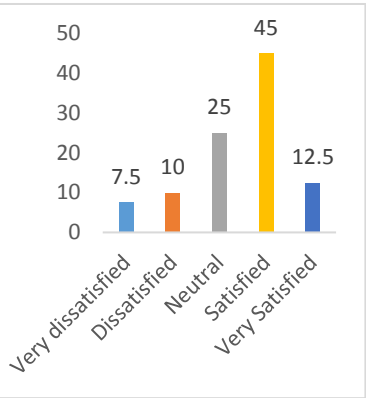


Figure 4.13: Overall, how satisfied or unsatisfied are you with your area's open spaces?



Source: Field Survey, 2021

Furthermore, the effect of visiting open spaces inquiry was made from the respondents, in terms of satisfaction derived from visiting an open space within the individuals' neighbourhood in figure 4.11 above. In contrast, 40% of the respondents were neutral about their satisfactory rate, 30% were satisfied, 20% were dissatisfied, and 10% were very satisfied. The rate at which the respondents could easily access the open space was stated as 5-10 minutes by most of the respondents 47.5%, those with more than 10 minutes were 27.5%, and those that could access open space within 2-5 minutes were 25% as indicated in figure 4.12. As rated in figure 4.13, overall satisfaction stated that 45% were well satisfied with the open space in their area, 25% were neutral, 12.5% were very satisfied, 10% were dissatisfied, and 7.5% were very dissatisfied.

4.4 Relationship between users of open space during Covid-19 period

Figure 4.14: Which of the components of the open space do you enjoy the most?

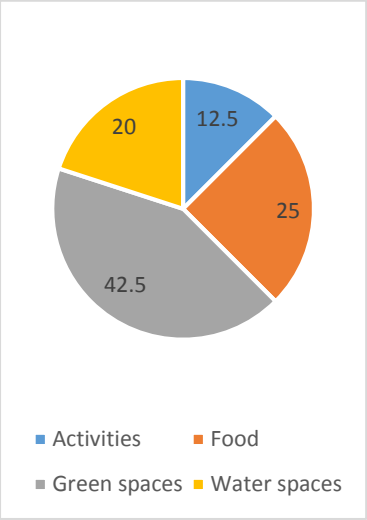


Figure 4.15: How often do you visit the open space in your area before covid-19?

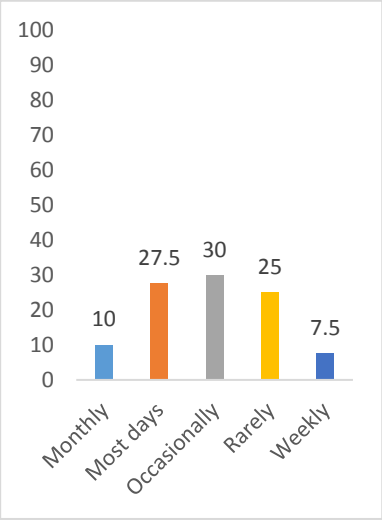


Figure 4.16: How often do you visit the open space in your area during covid-19?

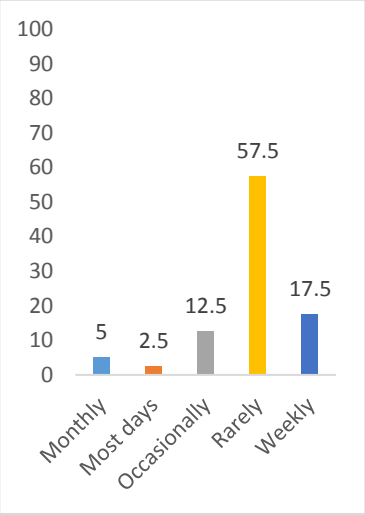


Figure 4.17: What motivates you to visit the open spaces in your area during covid-19?

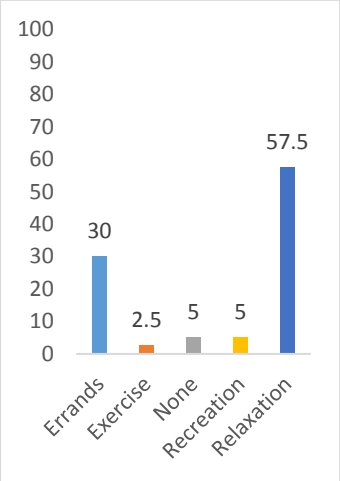


Figure 4.18: What motivates you to visit the open spaces in your area before covid-19?

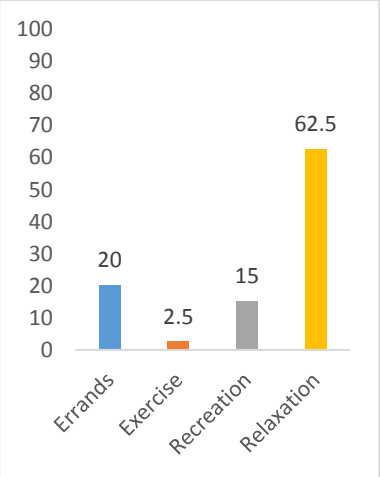
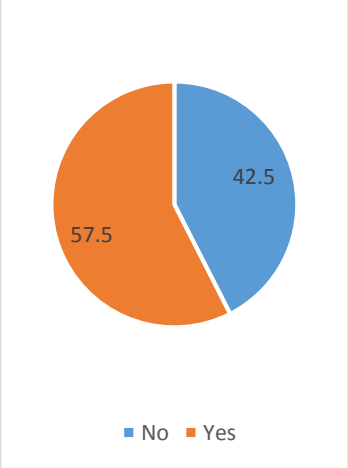
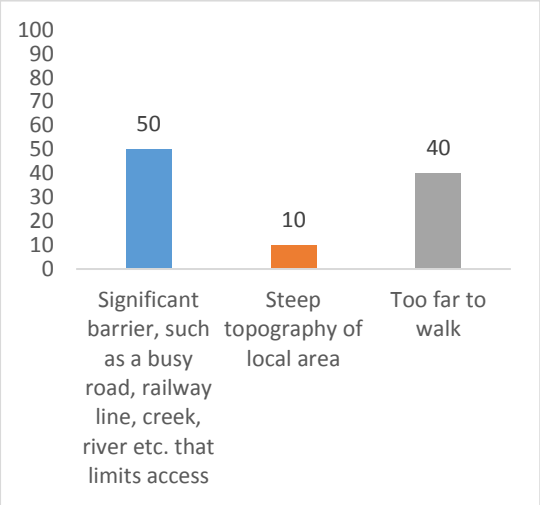


Figure 4.19: Are the open spaces and their amenities clean and well maintained during this period?



Source: Field Survey, 2021

Figure 4.20: Are there barriers that stop or limit you from accessing your nearest open space? What are they?



Source: Field Survey, 2021

In figure 4.14 above, components of these open spaces were also weighted by the respondents; 42.5% of the respondents enjoyed the green spaces the more, 25% enjoyed the food aspect the more, 20% enjoyed water spaces the more, and 12.5% enjoyed activities they engage in the use of the open spaces. Before the covid-19 outbreak, 30% of the respondents visited open spaces occasionally, 27.5% visited most days, 25% rarely visited, 10% visited monthly, and 7.5% were weekly visitors, as illustrated in figure 4.15. Unlike before covid-19, figure 4.16 showed a significant increase in the population of people that rarely visit open spaces at 57.5%; occasionally visitors also reduced to 12.5%, most days visitors reduced to 2.5%, weekly visitors also reduced to 17.5% and monthly visitors reduced to 5%.

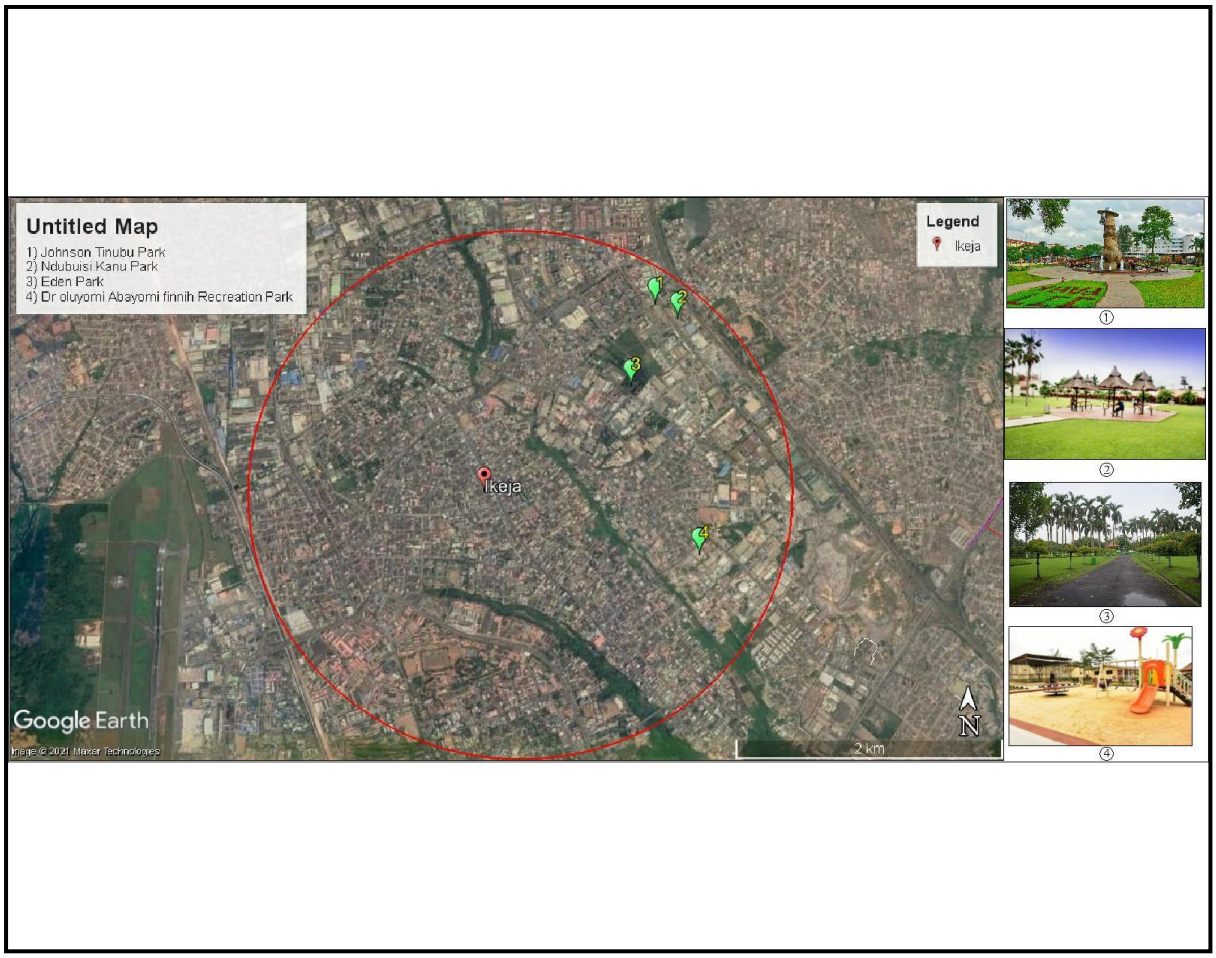
Figure 4.17 above shows that the most common reason for accessing open areas during Covid-19 was relaxation (57.5%), followed by 30% were motivated for errands, 5 % each were motivated for no reason and recreation respectively, and 2.5 % for exercise. Figure 4.18 above shows that 62.5% of people visited open areas before Covid-19 for relaxation, 20% were motivated to go for errands, 15 % were motivated for recreation, and 2.5% for exercise. The conditions of these open spaces in figure 4.19 show that 57.5% of respondents attested that the open spaces and their amenities were clean and well maintained during this period, while 42.5% think otherwise. Figure 4.20 above shows that significant barrier, such as a busy road, railway line, creek, river, etc. as suggested by 50% of the respondents, limit their access to the

nearest open space, the long distance-limited 40% to their nearest open space, and 10% suggested that steep topography of the local area is their barrier to access the open space.

4.5 Interview

This section of the chapter analyses the responses of individuals interviewed between the ages of 60 and above to know how the pandemic has affected their use of open spaces and its effect on them. The majority of this information was gathered via a brief questionnaire (see appendix). However, at this point, the data gathered during the interviews will be momentarily depicted.

Figure 4.21: Map Showing the location of the interviewed respondents within the 2km radii of the study area that indicate the Public Open Spaces that were visited during the pandemic in Ikeja Local Government.



(Source: Google Earth Map data, 2021)

1. How did you react during covid-19 to open spaces?

Ten of the interviewed respondents believed that during the covid-19 period, open spaces were not safe for them for the sake of good health. While three of the respondents considered that some of these open spaces were still safe, they could visit them during this pandemic. In comparison, two respondents were not motivated to visit the open spaces during the covid-19 period in the study area.

2. Were those spaces satisfying and appropriate? Yes/No

Eleven of the Interviewed respondents were not satisfied with those spaces in the residential neighbourhood. At the same time, four of the interviewed respondents were also not entirely open about satisfying those spaces, as indicated in their responses given.

3. How often were you able to visit during this period?

During this pandemic period, the responses given by the thirteen interviewed respondents indicated people's conscious effort to avoid using open spaces for now till probably when it is safe to do so and rarely visit these places during this period. In comparison with the two respondents who indicated that they visited these open spaces few times in the study area during this period.

4. Due to the pandemic, do you feel safe visiting the open spaces?

Nine of the Interviewed respondents feel safe to be visiting open spaces due to the pandemic's existence. While six of the respondents were not sure of their safety when visiting these open spaces in the study area.

5. During this pandemic which of the open spaces in the residential area did you visited most?

Out of the Fifteen respondents, ten respondents claimed that they visited the large park in the residential area in Ikeja. Compared to the other five respondents who claimed that the balcony was their open space, they visited most during the pandemic.

6. Was there any restrictions when you visit the spaces? Yes/No

Out of the Fifteen respondents who took part in the interview, nine claimed that the open spaces' restrictions were in-ground, while the other six respondents thought otherwise. But the higher percentage shows that restriction must have existed or is existing to a certain extent.

In conclusion, respondents who took part in the interview portion of this study were between 60 and above. It was also able to show that during the pandemic, the age group of 60 and up experienced several concerns, including those related to the uses of open space. As a result, the first question we decided to look at was how respondents responded to open spaces and whether those feelings would influence their fright of utilizing the public open spaces in the aftermath of the lockdown. It was discovered that people aged 60 and up were reluctant to use this public open space during the lockdown. This gives the older generation the impression that they cannot use these public spaces in the study area because of the so-called infection Covid-19 they may have encountered. It was also discovered that people aged 60 and up are more disconnected from the outside world, with some respondents reporting serious disruptions to their pre-existing needs. Despite being in the company of a large number of people before the Covid-19 pandemic, some people felt detached from the environment when their everyday lives did not match their expectations during the Covid-19 Pandemic. Their monotonous and repetitive everyday tasks caused them to become bored due to the Covid-19 pandemic. They saw their routine as misery in the residential neighbourhood of Ikeja Local Government Area. It was also deduced that respondent's movements, habits, spaces, and experiences were greatly diminished as links to the outside world were lost. Several participants expressed their feelings of being confined to their homes during the interview. The Covid-19 pandemic made respondents feel confined and trapped. The majority of respondents described themselves as common elderly persons stuck in their homes because of been scared of contact by the virus. Nine of the respondents agreed that a sense of safety and protection is one of the most important factors. Still, six respondents indicated a need to put adequate safety measures for visitors to notice when using these public spaces during the Covid-19 Pandemic.

4.6 Summary

The chapter focused on assessing, analyzing, and interpreting the outcomes. The information gathered with analysis, has aided in a better understanding of the effects of covid-19 on open spaces use in the residential neighbourhood of the study area. The outcomes and findings extracted through analysis of the data collected are discussed. The study's findings are addressed in the following chapter, which links the findings to theory by analyzing the information acquired and correlating the findings to the theories presented in the literature review.

CHAPTER FIVE

DISCUSSION

This chapter summarizes the facts and conclusions reached in the previous chapters and explores the findings in relation to the ideas mentioned in the literature review. This chapter discussion includes how to apply relevant theories to the research topic.

This study assessed how open spaces had been utilized within the residential neighbourhood during the Covid-19 pandemic in Ikeja Local Government Area, Lagos, Nigeria. The respondents who took part in this study were distributed within Ikeja and its environments.

According to the study objectives outlined in the first chapter, the current chapter is divided into three categories. The first part shows the attitude of the young population in Ikeja's residential neighborhood towards open space with regards to the literature on the residential area and public space, city form and open space. Based on the literature review, most residential areas consist of two critical elements: residences and public spaces, which add to occupants' satisfaction and everyday activities. Therefore, it could contribute to residential areas attractiveness to give a decent quality and safe public place for the younger generation. The explanations included in these sections are pertinent to the study's stated objective: to examine and analyze the young population's attitudes regarding open spaces in the study area.

According to the findings, a higher population of the respondents resides in the Government Reserved Area (GRA) 50% (figure 4.1. The respondents' age group indicated that most of the respondents were within the age group 18-23 years, 60% in figure 4.2. The respondents' attitude towards open places shows that the respondents' population was mostly made up of females at 52.5% and males were 47.5% of the population in figure 4.3. In figure 4.4, respondents were well aware of open spaces within the area at 77.5%. The respondents' understanding of open spaces indicated that most of them regard open spaces as social Spaces at 92.5% in figure 4.5. In figure 4.6, 87.5% of the respondents believe that public spaces are good for recreational activities. In figure 4.7, during this pandemic period, many people 82.5% have not been able to visit any open space; this might be due to the scare about the transmission of covid-19 in public. Figure 4.8 indicated that 37.5% has in previous time opted for large city park as an open space, 17.5% has used neighbourhood streets/sidewalks instead, 5% has never used any, 22.5% used places for essential errands, 2.5% used roof, balcony or fire escape, 7.5% used temporary street closure and another 7.5% also used wild and natural places. As illustrated in figure 4.9,

most of the respondents indicated places for essential errands as the most crowded public place at 50%, followed by large city park at 30%, neighbourhood street/sidewalks at 17.5%, and wildlife and natural places at 2.5%. Roof, balcony, or fire escape was seen as the less crowded places in public Space at 37.5%, followed by temporary street closure at 22.5% and wild and natural places at 17.5%, as shown in figure 4.10.

The effect of visiting open places during the covid period is the second objective of this research. Regarding the literature review on quality of life and public space mentioned above, part of the community open field attributes, the mere sight of trees and gardens can provide relief and restoration (Ulrich, 1986). As a scene for a variety of events, public open space provides certain benefits to one's standard of living, including psychosomatic and health and fitness, recreational doles, and the satisfaction of a desire aimed at a friendly metropolitan climate (Maller et al., 2009; Kaplan and Kaplan, 2009). The literature links how people can get devoted to or isolated from a given spot, dependent on their encounters, mentalities, and memories. Likewise, people may be genuinely connected to and separated from a particular area for peculiar reasons such as a covid pandemic.

Furthermore, the effect of visiting open spaces inquiry was made from the respondents, in terms of satisfaction derived from visiting an open space within the individuals' neighbourhood, in figure 4.11 40% of the respondents were neutral about their satisfactory rate, 30% were satisfied, 20% were dissatisfied, and 10% were very satisfied. To a large extent, the satisfactory use of the open spaces was high. The respondents' rate at which the open space could be easily accessed was 5-10 minutes by most of the respondents 47.5%, in figure 4.12. This implies that access to open spaces within the Ikeja community is not too far from the residence. As rated in figure 4.13, overall satisfaction shows that 45% were well satisfied with the open space in their area, which implies minute dissatisfaction than satisfaction. In figure 4.14, components of these open spaces were also weighted by the respondents; 42.5% of the respondents enjoyed the green spaces more than any other component in the open spaces available.

The third part of the chapter is pertinent for the third research objective. Based on the literature on ethnicity, age, and gender of open space users, users from different sexual orientations, gatherings, and ages see and use unique, critically significant open spaces. People use open spaces unexpectedly (Frumkin, 2003), and human changeability causes them to see diverse public spaces (Frumkin, 2003).

Based on observations and the answers of respondents gotten from the analysis in the study area, age matters on the use of public space because the younger population are not scared of using these public space during the pandemic compared to the older generation, especially in carrying out physical activities in open spaces in the study area.

The relationship between users onward from the period the pandemic took ground has also shown the response of residence in the usage of the open spaces around them, before the covid-19 outbreak, 30% of the respondents visited open spaces occasionally as against 57.5% that is more people who now rarely visit it during the covid-19 period. Occasional visitors were now 12.5% of the population. Figure 4.17 showed that relaxation was the most significant reason for visiting open spaces during covid-19 at 57.5%, compared to 62.5% before covid-19. This shows the rate at which interest in public spaces for relaxation has dropped since the inception of covid-19. The conditions of these open spaces in figure 4.19 show that 57.5% of respondents attested that the open spaces and their amenities were clean and well maintained during this period, while 42.5% think otherwise. Furthermore, in figure 20, significant barrier, such as a busy road, railway line, creek, river, etc. as suggested by 50% of the respondents, limit their access to the nearest open space, the long distance-limited 40% to their nearest open Space and 10% suggested that steep topography of the local area is their barrier to access the open space. Regarding the interview conducted among the older adults, It was revealed that the respondents shared a sense of apprehension and confusion in their stories. Since they had spent most of their time away from the outside world, others had trouble comprehending the true scope of the COVID-19 pandemic.

The respondents in the study area viewed the recent rash of deaths among the older age group worldwide as a place similar to their own, which implies a sense of fear in contacting the virus, resulting in death to rather stay indoors than be exposed to the virus itself. Furthermore, most of them believed that older people are vulnerable at the start of the COVID-19 pandemic, even though they are indoors. It has reduced the respondent's social lives, adding to their persistent concern about their declining health. The COVID-19 pandemic made the respondent feel trapped and confined. Before the pandemic, there was widespread frustration with overcrowding in shared common areas, which was portrayed as a "shrinking space" in most accounts. The actual distance was almost inconceivable as a rule during the beginning phases of the pandemic. Due to a lack of everyday activities during COVID-19, residents spent most

of their time in the individual sitting room, watching television as their only source of entertainment. Most people's negative feelings and emotions were exacerbated by living in a cramped space and the health restrictions that came with it. Also, findings show that the coronavirus pandemic has posed a substantial threat to using these public spaces in the study area; with difficulty comes tension and the need to break the community's uses of this public space.

Summary

A discussion of the variations in literature reviews in the study is given in this chapter. The results of this study are in line with the aims as they assess the impact of covid-19 on open spaces uses in the Ikeja residential area. The following chapter presents this research's conclusion and recommendation.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

The chapter concludes the study's objective and gives recommendations for further usage of the information gathered or pursued more study in line with this thesis.

Since the emergence of covid-19 in 2019, the usage and value of these public open spaces in the study area have reduced drastically. As the world continues to seek means to contain the spread of the Coronavirus, by all means, open places are now seen more as a threat to human health and life rather than a place for social activities. Many guidelines have been placed on the ground to help regulate the use of these public places and the population of those who can use the public spaces. Therefore, directly or indirectly, this has affected the purpose of visiting these public spaces in its users' minds. There is now a shift in people's attitudes before and now during the covid-19 period regarding the use of public space. However, even though there still exist those who do not know or fancy the usefulness of such open spaces, this is a period that the value of such open spaces is appreciated.

The findings of this study indicate that people's attitudes change over time towards activities they carry out through the use of the public spaces has drastically reduced, and they even avoid keeping a relationship with other users of the public spaces by rarely been present since the outbreak of covid-19, this was not so when there was no pandemic. As shown in the appendix, the hypotheses test also shows a significant effect of how people use open spaces during the covid-19 period. This also implies that people's occasional activities or public spaces components they do get motivated by had to be let go and might not have any other substitute in these activities. The result shows that relaxation is the major reason that those within Ikeja would opt for the use of open spaces within their community, even though respondents did not clearly announce the maintenance of these amenities as some still believed that it was not well maintained and, therefore, indicate that the government needs to do more on maintenance and also find solutions to the significant barriers, such as a busy road, railway line, creek, river, etc., long-distance to nearest open space and steep topography of local area all barriers to access open spaces within Ikeja.

Finally, the result shows that the Covid-19 pandemic brought unprecedented challenges and an unproportionate threat to humanity, especially for the older people in the study area and the world in general whose lives, relationships, and well-being was directly affected. Even though

the Covid-19 pandemic leads to considerable social change, older people think about living in their environment has drastically altered due to the coronavirus pandemic. Certain people, especially the older generation in the study area, developed a fear of death when they became aware of the Covid-19 virus and had little faith that the Covid-19 pandemic could be overcome. Although the younger population is unconcerned about death, prolonged isolation at home because of the Coronavirus pandemic decreases active work. Among the young population in the study area, they are bound to encounter tension, insomnia, melancholy, and self-harm at home. They are accustomed to social activities as part of their daily routine.

Recommendations

- Long-lasting solutions should be found to the significant barrier, such as a busy road, railway line, creek, river, etc. Long-distance to the nearest open space and steep topography of the local area are barriers to access open spaces.
- Suppose new lockdown steps are needed in the immediate future. In that case, governments should consider allowing citizens to spend some time outside." Spending time outside has a calming impact on the mind. Expanding the strength of built-up communities even with pandemics by reestablishing and broadening green and blue spaces in metropolitan territories ".
- According to the research, potential municipal projects should prioritize incorporating elements that enable people to connect with nature (e.g., more green areas in public parks, etc.) and special attention to the most disadvantaged population segments.
- Maintenance of the amenities used within these open spaces should prioritize by the government.
- The government should also adopt policies that help distribute these open spaces uniformly across the various communities to avoid overcrowding and motivate more people to visit these open spaces.
- Proper urban and regional planning rules and guidelines could be developed and followed to make open spaces more meaningful and maximized.

- Also, future planners and landscape designers should keep in mind that everyone should have fair access to high-quality blue and green environments. We've now added to a large and convincing body of evidence suggesting that this access can help prevent and treat mental health problems, especially in urban areas. This is especially important in the event of a pandemic, but regardless of the Covid-19 pandemic, it should be a planning priority that could improve our health in society.

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APPENDICES

Appendix 1: Questionnaire data analysis output

Primary Data

		Count
Which area do you live in, Ikeja?	Akiode	3
	Aluasa	10
	Anifowose	2
	General residential area (GRA)	30
	Magodo	10
	Ogba	6
	Opebi	1
	Oregun	2
	Total	65
What age group are you in	18-23	40
	24-29	15
	35-39	10
	Total	65
What is your gender?	Female	40
	Male	25
	Total	65
Are you aware of open spaces in your area	No	15
	Yes	50

	Total	65
Are you looking at public space as a social space?	No	7
	Yes	58
	Total	65

		Count
Do you think public spaces are good for recreational activities?	No	10
	Yes	55
	Total	65
During the pandemic, were you able to visit any open space?	No	54
	Yes	11
	Total	65
Which of your area open spaces have you used?	Large city park	30
	Neighbourhood street/sidewalks	10
	None	3
	Places for essential errands	12
	Roof, balcony or fire escape	3
	Temporary street closure	4
	Wild and natural places	3
	Total	65
Where do you think is more crowded?	Large city park	20
	Neighbourhood street/sidewalks	14
	Places for essential errands	30

	Wild and natural places	1
	Total	65
Where do you think is less crowded?	Large city park	9
	Neighbourhood street/sidewalks	6
	Roof, balcony, or fire escape	30
	Temporary street closure	13
	Wild and natural places	7
	Total	65
How satisfied are you with the public open space during the pandemic in your local neighbourhood?	Dissatisfied	16
	Neutral	29
	Satisfied	12
	Very dissatisfied	8
	Total	65
How much time do you take from home to get to the closest open space to you?	2-5 minutes	15
	5-10 minutes	35
	More than 10mins	14
	Total	65
Overall, how satisfied or unsatisfied are you with your area's open spaces?	Dissatisfied	8
	Neutral	19
	Satisfied	29
	Very dissatisfied	3
	Very Satisfied	6
	Total	65
	Activities	8

	Food	15
Which of the open spaces components do you enjoy the most?	Green spaces	30
	Water spaces	12
	Total	65
How often do you visit the open space in your area before covid-19?	“b 11Monthly	8
	Most days	17
	Occasionally	20
	Rarely	15
	Weekly	5
	Total	65
How often do you visit the open space in your area during covid-19?	Monthly	4
	Most days	2
	Occasionally	8
	Rarely	38
	Weekly	13
	Total	65
What motivates you to visit the open spaces in your area during covid-19?	Errands	18
	Exercise	1
	None	2
	Recreation	2
	Relaxation	42
	Total	65
What motivates you to visit the open spaces in your area before covid-19?	Errands	10
	Exercise	2

	Recreation	13
	Relaxation	40
	Total	65
Are the open spaces and their amenities clean and well maintained during this period?	No	22
	Yes	43
	Total	65
Are there barriers that stop or limit you from accessing your nearest open space? What are they?	Significant barrier, such as a busy road, railway line, creek, river, etc. that limits access	35
	The steep topography of the local area	5
	Too far to walk	25
	Total	65

Appendix 2: Hypothesis testing

Hypothesis Testing

How satisfied are you with the public open space during the pandemic in your local neighbourhood? * Overall, how satisfied or unsatisfied are you with your area's open spaces? Crosstabulation

Count

		Overall, how satisfied or unsatisfied are you with your area's open spaces?					Total
		Dissatisfied	Neutral	Satisfied	Very dissatisfied	Very Satisfied	
How satisfied are you with the public open space during the pandemic in your local neighbourhood?	Dissatisfied	3	0	4	0	7	14
	Neutral	3	15	6	2	0	26
	Satisfied	0	0	15	0	2	17
	Very dissatisfied	0	0	5	3	0	8
Total		6	15	30	5	9	65

How often do you visit the open space in your area before covid-19? * How often do you visit the open space in your area during covid-19? Crosstabulation

Count

		How often do you visit the open space in your area during covid-19?					Total
		Monthly	Most days	Occasionally	Rarely	Weekly	
How often do you visit the open space in your area before covid-19?	Monthly	0	0	4	0	3	7
	Most days	0	0	0	10	6	16
	Occasionally	5	0	2	14	0	21
	Rarely	0	3	1	10	0	14
	Weekly	0	0	2	0	5	7

Total	5	3	9	34	14	65

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.324[a]	12	.000
Likelihood Ratio	48.857	12	.000
N of Valid Cases	65		

a. 18 cells (90.0%) have expected count less than 5. The minimum expected count is .30.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.158[a]	16	.013
Likelihood Ratio	35.706	16	.003
N of Valid Cases	65		

a. 22 cells (88.0%) have expected count less than 5. The minimum expected count is .08.

Appendix 3: Interview data

Respondents	
INTERVIEW 1(Questions)	**Answers**
1. **How did you react during covid-19 to open spaces?** 2. **Were those spaces satisfying and appropriate? Yes/No** 3. **How often were you able to visit during this period?** 4. **Due to the pandemic, do you feel safe visiting the open spaces?** 5. **During this pandemic which of the open spaces in the residential area did you visited most?** 6. **Were there any restrictions when you visit the spaces? Yes/No**	1. Not Safe for me 2. Not Really 3. Not as usual as I used to before the Covid pandemic 4. No 5. Large City Park 6. Yes
INTERVIEW 2	
1. **How did you react during covid-19 to open spaces?** 2. **Were those spaces satisfying and appropriate? Yes/No** 3. **How often were you able to visit during this period?** 4. **Due to the pandemic, do you feel safe visiting the open spaces?** 5. **During this pandemic which of the open spaces in the residential area did you visited most?** 6. **Were there any restrictions when you visit the spaces? Yes/No**	1. Sad visiting them due to health safety 2. Kind off 3. Not as usual 4. No 5. Balcony 6. Yes
INTERVIEW 3	
1. **How did you react during covid-19 to open spaces?** 2. **Were those spaces satisfying and appropriate? Yes/No** 3. **How often were you able to visit during this period?** 4. **Due to the pandemic, do you feel safe visiting the open spaces?** 5. **During this pandemic which of the open spaces in the residential area did you visited most?**	1. didn’t visit at all due to the virus 2. not satisfying 3. Not as usual 4. No 5. Didn’t visit any 6. No Restriction

6. Was there any restrictions when you visit the spaces? Yes/No	
INTERVIEW 4	
1. How did you react during covid-19 to open spaces? **2. Were those spaces satisfying and appropriate? Yes/No** **3. How often were you able to visit during this period?** **4. Due to the pandemic, do you feel safe visiting the open spaces?** **5. During this pandemic which of the open spaces in the residential area did you visited most?** **6. Were there any restrictions when you visit the spaces? Yes/No**	1 Someplace were safe to visit 2 not satisfying 3 Not as usual 4 No 5 Balcony 6 No
INTERVIEW 5	
1. How did you react during covid-19 to open spaces? **2. Were those spaces satisfying and appropriate? Yes/No** **3. How often were you able to visit during this period?** **4. Due to the pandemic, do you feel safe visiting the open spaces?** **5. During this pandemic which of the open spaces in the residential area did you visited most?** **6. Were there any restrictions when you visit the spaces? Yes/No**	1 Not so happy due to the fact of getting the virus 2 Kind off 3 Not Regular 4 No 5 Neighborhood sidewalk 6 Yes
INTERVIEW 6	
1. How did you react during covid-19 to open spaces? **2. Were those spaces satisfying and appropriate? Yes/No** **3. How often were you able to visit during this period?** **4. Due to the pandemic, do you feel safe visiting the open spaces?**	1. Not motivated to visit 2. Kind off 3. Few times 4. Not really 5. Large park 6. Not Sure

5. **During this pandemic which of the open spaces in the residential area did you visited most?** 6. **Were there any restrictions when you visit the spaces? Yes/No**	
INTERVIEW 7	
1. How did you react during covid-19 to open spaces? **2. Were those spaces satisfying and appropriate? Yes/No** **3. How often were you able to visit during this period?** **4. Due to the pandemic, do you feel safe visiting the open spaces?** **5. During this pandemic which of the open spaces in the residential area did you visited most?** **6. Were there any restrictions when you visit the spaces? Yes/No**	1 Not motivated to visit 2 Not satisfying 3 Few times 4 Not really 5 Large park 6 Don't think so
INTERVIEW 8	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	1 Not safe for me 2 No 3 rarely 4 Not really due to the fear of the virus 5 Large park 6 Yes
INTERVIEW 9	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?**	1 Not safe for me 2 No 3 Rarely 4 Not really due to the fear of the virus 5 Large park 6 Yes

4 Due to the pandemic, do you feel safe visiting the open spaces? **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	
INTERVIEW 10	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	1 Not safe for me 2 No 3 Rarely 4 Not really due to the fear of the virus 5 Large park 6 Yes
INTERVIEW 11	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	1. Someplace were safe to visit 2. not satisfying 3. Not as usual 4. No 5. Balcony 6. No

INTERVIEW 12	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	1 Not safe for me 2 No 3 rarely 4 Not really due to the fear of the virus 5 Large park 6 Yes
INTERVIEW 13	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	1 Not safe for me 2 No 3 rarely 4 Not really due to the fear of the virus 5 Large park 6 Yes
INTERVIEW 14	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?**	1 Someplace were safe to visit 2 not satisfying 3 Not as usual 4 No 5 Balcony 6 No

6 Were there any restrictions when you visit the spaces? Yes/No	
INTERVIEW 15	
1 How did you react during covid-19 to open spaces? **2 Were those spaces satisfying and appropriate? Yes/No** **3 How often were you able to visit during this period?** **4 Due to the pandemic, do you feel safe visiting the open spaces?** **5 During this pandemic which of the open spaces in the residential area did you visited most?** **6 Were there any restrictions when you visit the spaces? Yes/No**	1 Not safe for me 2 No 3 Rarely 4 Not really due to the fear of the virus 5 Large park 6 Yes

Appendix 4: Image Showing the Public Open Spaces that were visited during the pandemic in Ikeja Local Government by the Interviewers.

1) **Johnson Tinubu Park**

2) **Ndubusi Kanu Park**

3) **Eden Park**

4) Dr. Oluyomi Abayomi Finnih Recreation Park